

# Antiquity

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### Editorial Notes

SOON after this number appears the Ur Exhibition will be open. The objects from the Royal Tombs will be on view for several months at the British Museum. Then some of the exhibits will go to America and some will return to Baghdad. The division of spoils takes place at the end of each season. The British representative of Iraq selects what he wants for the Baghdad Museum, and the rest is divided between the British Museum and the Museum of the University of Pennsylvania, which finds half the money for the excavations. Most of the objects, however, need expert treatment before they can be exhibited at all; and since this cannot be done in Baghdad, they are sent to the British Museum for this purpose. Consequently, when the exhibition is closed, the finds will never again be seen together in one room. Many of the finest objects are, at the time of writing, unpublished, and some are still 'in hospital'. At a recent meeting of the Society of Antiquaries, pictures of the best were thrown on the screen by Mr Leonard Woolley, with dramatic effect. The gold bulls' heads and the inlays astonished us with their naturalism; the style is mature and plainly ancestral to the conventionalized designs of later dynastic times which have long been known from engraved seals. The technical skill displayed demands a prolonged antecedent period for its development.



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The year 1928 will be remembered not only for Mr Woolley's discoveries, but also in a different way for the publication of the second volume of Sir Arthur Evans's *Palace of Minos*. A concluding volume has yet to appear and thus set the coping-stone on a really great achievement. Throughout the life-time of some of us Sir Arthur Evans has devoted himself and his resources unsparingly to the service of archaeology. With a flair for discovery and for correct diagnosis, he first found and then bought and excavated the site of Knossos. New civilizations and new phases of art were revealed, both standing in the direct line of descent of European culture. Reading Sir Arthur's account one rejoices that the man, the place and the circumstances were so happily conjoined. The book is a masterpiece of which British scholars may well feel proud. Indeed, we may congratulate ourselves upon the work of British archaeologists in the near East, in Iraq and in India. The recent epoch-making discoveries in all three countries have been due to British, or British and American, enterprise; and the published record is evidence of the thoroughly sound methods employed.



In other departments of archaeology we have led the way. Britain is the only country that marks ancient remains in plan on its large-scale maps, and as a result the study of earthworks is a peculiarly British subject. (As a matter of fact few foreign countries mark any antiquities at all on any of their maps, unless these are so large that it is unnecessary. There are practically none on the French 1:80,000 map, which corresponds roughly to our 1-inch-to-mile Ordnance Map). The absence of cadastral maps handicaps the student of earthworks. Not everyone has the time or the skill necessary for making his own plans—rather a long business before air-photography was invented. But anyone with a little elementary knowledge of surveying can use a plan, on the scale of 25 inches or 6 inches to the mile, to illustrate his account of a camp or group of barrows, or to record the exact position of new discoveries. A landmark was the foundation in 1901 of the Earthworks Committee of the Congress of Archaeological Societies. One result of the Committee's printed propaganda was the publication of several good books on the earthworks of certain districts. Another was the preservation of some earthworks which would otherwise have been destroyed. The inclusion of special chapters on Ancient Earthworks in the volumes of the Victoria County History—itsself a notable landmark dating from 1900—was a symptom of the growing interest in open-air studies.



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The cumulative result of all this work is a mass of reliable information, as yet undigested. The process of observation and record began with Camden in the 16th century, but it acquired great impetus during the 19th century from the formation of local societies. It is easy to disparage the work of such societies, but we should be the poorer had they not existed—witness the footnotes in Rice Holmes' *Ancient Britain*. The facts recorded in their transactions are the raw materials of synthesis, and the time is ripe for coordinating them.

A distribution-map is itself a synthetic product, revealing much that is new. It brings out the regions which have been the centres of population in the past; and comparison with a soil-map generally suggests the controlling factors. That is true today, when the areas of densest population coincide with the coal-fields; but it was equally true in prehistoric times when the densest population was usually in limestone regions. It is remarkable how constant this coincidence is. Certain regions which may broadly be described as the Cotswolds, the Middle Thames region, the chalk uplands of Wessex, the carboniferous limestone area of Somerset, and favoured portions of the North and South Downs were thickly inhabited in several successive periods. Others were, apparently, inhabited in some and in others deserted or traversed by nomad hunters only. These facts can only be accurately determined by means of carefully compiled maps of each period, and until they have been completed and published our knowledge must remain shadowy.

The objects whose distribution provides the clue may vary in size from a hill-top camp of several acres to a Roman villa, or a barrow only a few feet across. A very large number of these sites are of course already marked on the Ordnance Maps; but many are not. Moreover, of those which are marked the true character may be unknown. A little reflection will show that this must necessarily be so. The diagnosis, so to speak, of an ancient site is a matter requiring knowledge and experience; the number of such sites is legion, and the number of persons who are even interested in such is limited. Yet there is no more fascinating pursuit than field-archaeology. To add a new site to the map or confirm a doubtful one by mere inspection, is to add a brick to the temple of knowledge; the satisfaction of one such discovery is equal to that of the collector who acquires a new specimen, and it is perhaps more lasting.



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The game begins usually at home, with the encounter of an allusion in some obscure article or in the diary of some long-departed antiquary. A ramble with an Ordnance Map on the next fine day, guided by his description—often, alas! deplorably vague—and by reference to a good contemporary map, if vanished names are used, will often result in rediscovery. It is extraordinary how even important sites well-known in their day fall sometimes into complete oblivion. Two Roman villas near Maidenhead—at Feens and Berry Grove—are frequently referred to in Hearne's diary. He visited them constantly and dug in them. Yet the sites of both were completely forgotten. One has recently been rediscovered, by three people, all searching quite independently. The other is still lost, but is being looked for. There are many similar examples to be found all over the country. The sites of Roman houses are often quite easy to identify, from the broken tiles, pottery, tesserae and such like lying on the surface. (The Feens villa was thus located). Barrows are often so large and obvious that no doubt is possible; though there are of course traps to beware of. Skill comes with practice only; it cannot be taught.




Work of this kind is as valuable as excavation. It is the necessary preliminary to the study of a region; as it develops there arise problems as fascinating as those of any detective story. No elaborate equipment is required—nothing but a 6-inch map of the district and a severely critical attitude of mind. Books are consulted and read for the facts they supply, not for the opinions of their authors. Knowledge is acquired at first hand, from facts.



We continue to receive most encouraging letters from our readers, and we wish once more to thank them for their support and to assure them that their good wishes are deeply appreciated. The success of our undertaking has been assured from the start, and the renewal of the vast majority of subscriptions relieves us of anxiety for the immediate future. But of course the larger our circulation, the more we can spend on each number, and the more illustrations and maps we can provide. These are very expensive, both to prepare and to reproduce. Subscribers could help us enormously by interesting their friends in ANTIQUITY, as we know several have already done. We should of course be only too glad to assist them by sending leaflets to any who may care to have them for distribution.





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PLATE I

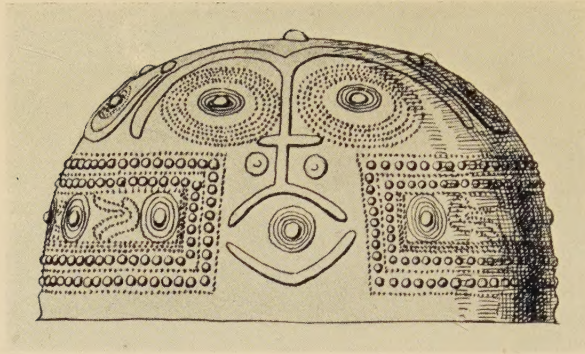


FIG. 1. BRONZE HELMET WITH REPOUSSÉ ORNAMENT

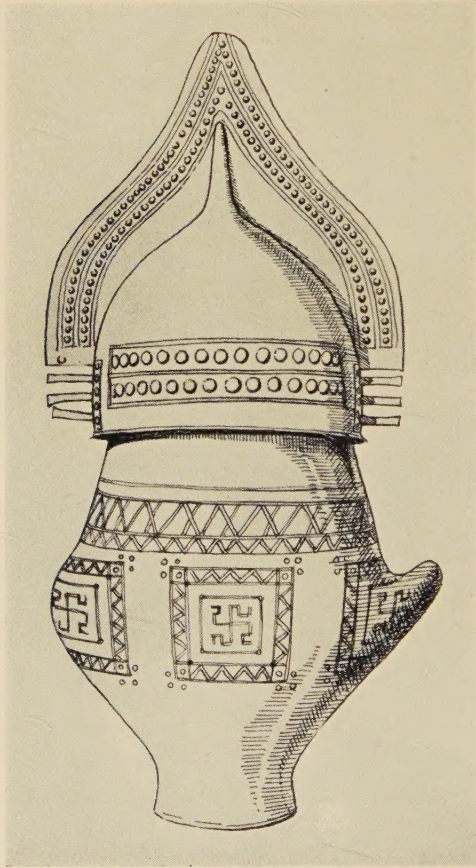


FIG. 2. POTTERY OSSUARY COVERED WITH BRONZE HELMET  
*By permission from MacIver's 'Villanovans and Early Etruscans'*



## Forerunners of the Romans. II.

by D. RANDALL-MACIVER

AT the date of about 1000 B.C., that is to say a little after the beginning of the Iron Age and two centuries before any effective colonization by the Etruscans coming from Asia Minor, northern and central Italy may be partitioned into five distinct spheres of civilization. For convenience of treatment I shall assume that each of these spheres represents a comparatively homogeneous people, passing over the question whether there may not have been submerged minorities of some local importance. And I shall give each of these five peoples, or nations as they may not unfairly be called, a conventional name of geographic derivation, to avoid the endless and futile controversies as to tribal nomenclature. As the accompanying map therefore will show the north-west is occupied by the Comacines, part of Venetia by the Atestines, the Bolognese region by the northern Villanovans, Tuscany and part of Latium by the southern Villanovans. East of the Apennines, from Rimini to Aufidena, the Adriatic coast and the central Apennines were held by the Picenes, who must be understood for this purpose to include some of the tribes known to history as Samnites in addition to a small number of Umbrians. The first four of these nations were related by more or less close ties of kinship and practised the same burial rite of cremation, but the Picenes were of wholly different origin and used only the rite of inhumation. Of the Ligurians, occasionally mentioned by classical writers as occupying the coast of the Italian Riviera, it is impossible to say anything as they have left no remains by which their civilization in the Iron Age can be judged.

In an earlier article in *ANTIQUITY* (June 1927) I have dealt at length with the Etruscans, and have shown that the immigration of this Oriental people and the civilization which they produced affected pre-Roman Italy more powerfully than any other single factor. Among the forerunners of the Romans the first and far the most important place must be assigned to the Etruscans. Nevertheless the provincial Italian civilizations, which preceded the arrival of this alien people



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and in several parts of the country maintained an independent existence down to the 4th century B.C., were of great importance. I shall now attempt to describe the individual character of these five pre-Etruscan nations, and to estimate how much each of them achieved before the whole country came under the levelling sway of the Romans.

The most direct and also the most important contribution to the general Italian culture of the Early Iron Age was undoubtedly that of the two Villanovan nations. In Etruria the southern Villanovans might be described first as the foster-parents, then as the direct understudies of the Etruscans, who owed far more to them than has been generally appreciated. It was the Villanovans who were the pioneers of metal-working, and it was largely owing to the presence of so many skilled and experienced coppersmiths among serfs and dependents that the Etruscans were able to achieve their rapid pre-eminence in the copper, bronze, and iron trade of the Mediterranean. We may begin by studying the northern branch of this remarkable people, which settled in the districts centring on modern Bologna.

The northern Villanovans then occupied those provinces on the east side of the Apennines which are comprised under the modern names of Bologna, Faenza, Forlì, and Ravenna. On the north their territory was bounded by the river Reno and on the west by the Panaro. With the exception of an important cemetery at Rimini, virtually all our information about them is derived from the excavation of sites in and around the city of Bologna. Explorations carried on at intervals during the last seventy years have produced an enormous amount of material, which may all be seen in the Museo Civico of Bologna. It has been classified into three periods, named, after the titles of the estates, First Benacci, Second Benacci and Arnoaldi. To delimit these periods in positive terms of actual years is not easy, and there is some disagreement on the subject. I have given my reasons elsewhere for a tentative division which would place the First Benacci at 1050 to 950 B.C., Second Benacci at 950 to 750 or 700 B.C., Arnoaldi at 750 or 700 to 500 B.C. It is universally accepted that the Arnoaldi culture is of very slight importance after 500 B.C., when it dies out and is superseded by the later Etruscan.

During the five hundred years from 1000 to 500 B.C. the northern Villanovans passed through several stages of development, but their progress, as was natural with a people who had very limited foreign trade and little external stimulus, was not rapid or sudden. In the First Benacci period they may be seen as comparatively recent settlers,





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not very long arrived from their original homes on the Danube. Iron was still rare throughout the peninsula, and is exceedingly scarce in the graves of the tenth century. Copper and bronze however were abundant and freely worked. In the manufacture of weapons and implements as well as of personal ornaments the Bolognese demonstrate a facility that must have been gained through many generations of practice. There has been a great advance in expert handling since the Bronze Age though the technical processes are little different. The highest point of achievement is seen in the bronze bits of the horses and the bronze or copper girdles worn by the men. These are not only admirable specimens of handicraft but they are real works of art. The native Italian origin of the girdles is proved, if any proof be needed, by the occurrence of their prototypes among the large fibulae of a Bronze Age hoard. That the centre of production for these objects was north, and not south, of the Apennines seems to be proved by the fact that bronze girdles do not appear in Etruria before the Second Benacci period, when they have passed out of fashion at Bologna. On the other hand the bronze helmets, so distinctive of sites like Corneto, were probably manufactured in Etruria and sometimes traded across the Apennines, inasmuch as a pottery model of one has been found at Rimini.

Pottery-making is a primitive art which does not invariably keep pace with the general culture of any people. At Bologna in the First Benacci the pottery is moderately good; it is hand-made and rather rough, but not lacking in a certain barbaric grace. It is seen at its best in the ossuaries made for holding the cremated ashes of the dead. These are of the distinctive form which has become widely known as the 'Villanovan urn'. Ossuaries and the bowls which cover them are generally decorated with incised geometrical patterns, showing relationship to the geometrical art practised at this time all over Europe; the choice of motives however is singularly restricted, a square macander and a triangle being almost the only alternatives.

The Second Benacci period at Bologna appears as a natural and normal evolution from the First, marked not so much by any abrupt transitions of style or method as by a great increase in wealth and the multiplication of new materials. Iron, so rare in the first period, is now of frequent occurrence, and great progress has been made in the manufacture of bronze. Large ossuaries and situlae were the most important products of this industry, made by the naïve but very effective process of hammering out sheets of copper or bronze, cutting



PLATE II



FIGS. 1-2. DESIGNS ON SITULAE AT ESTE. FIG. 3. THE BENVENUTI SITULA 500 B.C.

FIG. 4. A SITULA OF ABOUT 420 B.C.

*By permission from MacIver's 'Iron Age in Italy'*

PLATE III



BRONZE PENDANTS FROM ASCOLI IN PICENUM  
*By permission from MacIver's 'Iron Age in Italy'*



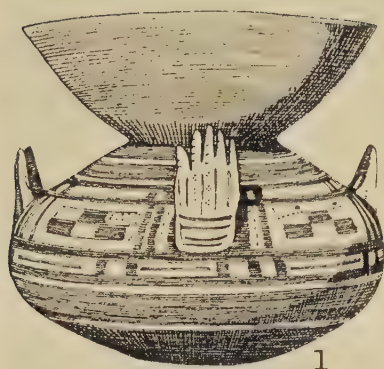
PLATE IV



IONIC BRONZE FROM PISARO, POSSIBLY REPRESENTING HECTOR AND ACHILLES  
OVER THE BODY OF PATROCLUS

*By permission from MacIver's 'Iron Age in Italy'*

PLATE V



1



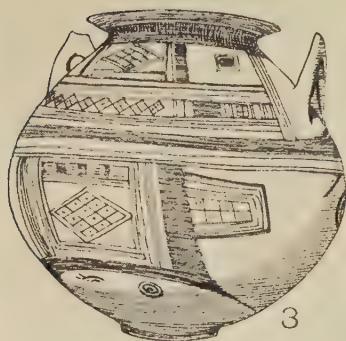
4



2



5



3



6

FIGS. 1-3. DAUNIAN POTTERY OF 6TH AND 5TH CENTURIES B.C.  
FIGS. 4-6. CANOSA POTTERY OF THE HELLENISTIC PERIOD  
*By permission from MacIver's 'Iron Age in Italy'*



## FORERUNNERS OF THE ROMANS

them to the required shape, and then folding them over and fastening them with rows of large rivets. The rivets are so arranged as to form a decorative pattern on the outside. This is a process peculiar to the Villanovans of both branches and always serves to distinguish their work from that of the Etruscans when the latter appear upon the scene. For the Etruscans were entirely addicted to casting and did not use the technique of hand-hammered plates. It was during the Second Benacci that Bologna finally established itself as the Birmingham of ancient Italy, a position which it never lost but maintained even under the Etruscan domination which spread north of the Apennines about 500 B.C. In the sixth and fifth centuries, it is well known that Bolognese *situlae* were carried even over the passes of the Alps and up the Rhine to Germany, Switzerland, France and England. This was a flourishing export-trade, the beginnings of which may be inferred to be several centuries earlier. In return new models of weapons were imported, for several of the Hallstatt bronze swords with their distinctive antennae-handles have been found at Bologna dating from the eighth and perhaps the ninth century. At the same time beads of glass, paste, and Baltic amber, appear quite abundantly, the last of which is obviously a product of transalpine commerce.

In addition to large bronze vessels the Italian Birmingham produced numerous weapons and implements. Particularly common are the small half-moon blades of bronze which are generally described as razors. These were traded all over Italy and were commonly used even in Venetia, where Este had its own quite independent and very flourishing industry. The general dominance of the interest in metal-work is seen even in the pottery of the Second Benacci in which patterns of openwork and imitation chains moulded in clay are not uncommon. Towards the end of the period the influence of foreign designs may occasionally be detected in the floral motive of a bronze lid or the animal designs moulded on a pottery cup. There is sometimes perhaps a far-away echo from the Dipylonic style of Greece as well as the first beginnings of a tentative zoomorphism derived from the Etruscans.

Leaving for later treatment the Arnoaldi period at Bologna we may now review the development of the southern Villanovans from 1000 to 750 B.C., the date which I have assigned as the end of the Second Benacci, which happens also to coincide with the traditional founding of Rome. More than three centuries before Romulus brought the first nucleus of his rude shepherds and herdsmen together

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into an enclosed settlement on the Palatine, the Villanovans had colonized much of Etruria and a part of northern Latium. Their very earliest settlements were in the mountains of Tolfa, a little north of Rome. Almost contemporary with these were several considerable colonies in the Alban Hills and one small village on the site of Rome itself, all of which were well-established by 1000 B.C. Even at this early date the predecessors of the Romans were quite an advanced people. Models of the houses in which they lived, substantial structures of wattle and daub with posts and roofs of wooden beams, have been found in their tombs. The Romans themselves never built any better houses than these for some centuries, at least after they had founded the city that was to become imperial.

In its general aspect the culture of the southern Villanovans was closely analogous to that of the Bolognese, but there were a good many minor differences of local custom which cannot be enumerated in a summary review. The most salient point with them, as with their northern kinsmen, is the excellence of the metal work. It was probably the knowledge that copper mines existed in Tuscany, and a wealth of iron in the island of Elba, that had directed their steps to this region. No doubt it was from them that the Bolognese and the Venetians obtained most of their raw copper and iron and perhaps a little of the tin, which is not unknown in Tuscany. The southern Villanovans therefore had had every opportunity of developing their arts and crafts, and may very likely have enjoyed the additional advantage of receiving occasional foreign teaching. For it is reasonable to suppose that the permanent settlements of the Etruscans were preceded by some generations of intermittent prospecting, while after 800 B.C. the Etruscan colonies were firmly established in many parts of the coastal region. But if we cannot exclude a certain amount of seaborne influence the importance of this must not be exaggerated; for the perfectly indigenous industries of the Bolognese had reached almost, if not quite, as high a mark as those of the southern Villanovans. The latter indeed seem to have actually imported a considerable quantity of Bolognese products. Moreover the technique of manufacture in Etruria down to the eighth century is predominantly Villanovan and not Etruscan. It is the same process of using hand-hammered plates which has been already described. A masterpiece of this work, dating from the middle of the Second Benacci period, is the bronze helmet used to cover a typical earthenware pottery of the best Villanovan style with geometric ornamentation. It is shown together with its



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ossuary in plate I (fig. 2). The decoration consists of rows of engraved bosses in repoussé, separated by rows of finely punctuated dots and by engraved circles at the base of the crest. All this is purely native work, of the same geometric school that has been seen north of the Apennines. A helmet of another design is illustrated in plate I (fig. 2). Swords and daggers found on this and similar sites in Etruria are modelled on foreign types, probably derived from Greece, though manufactured locally. The taste for foreign weapons led occasionally to the purchase of Hallstatt antennae-swords, which must have been obtained through the mediation of Bologna and were always very rare in central Italy.

Not so common in Etruria as in the north are large vessels of bronze, but the examples that have been found are very fine and are sometimes so like the Bolognese that they might have been directly borrowed. Flat bronze flasks derived at second or third hand from a well-known Egyptian model, gold bullae, and geometrically painted pottery all show that Aegean trade was beginning to play an important part in the life of the eighth century. During the course of that century the Etruscan gradually won the upper hand so that before 700 B.C. Villanovanism was extinct as an independent civilization south of the Arno. For over two hundred years, from 1000 to 800 B.C., the southern Villanovans existed as a distinct people with a strongly marked individuality, then for a hundred years more they showed themselves brilliant pupils who could retain their own character even while adopting impressions and inspirations from outside. They had raised the level of their country to a high standard before they were finally absorbed by the invaders from Asia Minor, though it must be admitted that theirs was a barbaric culture in comparison with what had been produced at the same time in the Aegean and the Orient.

In Etruria and Latium the history from 750 to 500 B.C. is simply the history of the Etruscans. But the northern Villanovans, sheltered behind their protecting mountains, were neither invaded nor interfered with before 500 B.C., when the Etruscans began their new policy of planting colonies north of the Apennines. For two hundred and fifty years therefore after the foundation of Rome Villanovanism continued to develop on its own lines round Bologna; this is the time which is known as the Arnoaldi period. As compared with the Second Benacci in the same region the Arnoaldi shows a good deal of change, as might be expected from the greatly increased resources and opportunities of commerce. The Bolognese, who had no reason to boycott their new neighbours, continued to trade with Etruria as they had done before

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it came under new masters. It is natural therefore that a few pieces of the finest Etruscan goldwork have been found at Bologna, and that Etruscan motives and patterns may be detected here and there in the work of the native coppersmiths between 700 and 500 B.C. Nevertheless the independence of the Bolognese is more remarkable than their susceptibility to foreign suggestion; the old technique of hand-hammered metal persisted and the fashionable situlae and cylindrical cists were produced by this process in innumerable quantities. Raw materials were much commoner than before; the opening up of the iron-mines in Elba flung on the market an unlimited quantity of iron, of which a great deal found its way over the passes of the Apennines. In other directions the trade was equally brisk and the small ornaments such as fibulae, beads, bracelets and headpins reflect rapid changes of fashion. The important point to be noted however is that the trade was not with Greece; no Greek pottery or other products of the Aegean appear anywhere near Bologna before the end of the sixth century. New methods of pottery-making were employed; the wheel and the stamp came into use. And the old geometrical motives were replaced to a great extent by a rudimentary zoomorphism which produced cursive figures of ducks, or schematic human forms on the pottery. The swastika also appeared, just at the same time that it became rife over a great deal of Italy, probably coming in on a wave of new influences from the other side of the Alps. In general the native life during these two hundred and fifty years was broadened and enriched, but remained exceedingly conservative. The Bolognese of the Arnoaldi time were certainly not stagnating but their progress was very different both in kind and quality from that of their southern kinsmen. On the whole their standard between 700 and 500 B.C. is not so high in the scale of art as that attained by the southern Villanovans as early as 700 B.C. There are some variations of type but few improvements of value. The contribution of the Bolognese to the 'artistic patrimony' of ancient Italy was exhausted by 700 B.C., though their facility in commercial production had not decreased.

Venetia on the other hand has a very different story to tell. Among the Atestines the seventh, sixth and fifth centuries mark the highest point of their curiously individual culture. Before this there is nothing of importance to record, for the idea that there was any 'First Atestine' period corresponding to the 'First Benacci' is an error. Possibly the Atestines were actually the last of the cremating nations to settle in Italy; in any case there is little more than a hint of their presence



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before a time equivalent to the 'Second Benacci'. When they first come under observation, about 900 B.C., it is at once evident that the Atestines were originally very closely related to all the Villanovans, and kept up a close intercourse with them. Not only the burial-rites but the details of tomb-construction are identical at Este and Bologna. And in many respects the contents of the graves are almost interchangeable; there are the same types of weapons and implements, the same varieties of fibulae, bracelets, necklaces and other ornaments at Este and at Bologna for a couple of centuries. At first sight it seems almost as if it was the same people. But a closer investigation shows that with all this similarity there is quite an appreciable amount of difference. Some things manufactured at Bologna are never found at Este, and vice-versa.

As a centre of metal-working Este began independently of Bologna and always retained this independence. If Bologna was the Birmingham of ancient Italy then Este was certainly its Sheffield. Even in the earliest Atestine tombs there were superb great ossuaries made of bronze. The technique is the same as that used by the Villanovans, a process of folding hand-hammered plates and fastening them with ornamental rivets, but the forms are different. In all periods the Venetian situla, which was the most characteristic product of Este during more than four hundred years, can be readily distinguished from the Bolognese. It is evident that the Atestines brought their knowledge of bronze-working from their original Danubian homes; they were already experienced craftsmen when they arrived in Italy. And with the technique they also brought the form of their favourite bronze vessel. It is impossible to maintain the claim sometimes made for colonial Greece to be the inventor of the situla; Este has a clear priority of several generations on any system of chronology. The situla is simply an evolution from the household bucket, but it was the Atestines who made it an object of beauty, and it is quite likely that their work suggested the form to the Bolognese. Together with the situla the bronze girdle had an immense vogue at Este. The earliest examples of girdles are some remarkably fine specimens which may be dated about 800 B.C. and very closely resemble girdles found both at Bologna and Corneto; it is difficult to say which of these several districts was borrowing from the other. But the later girdles of Este are of a different shape and quite unlike anything known in other parts of Italy. The influence of metal work entered into the manufacture of pottery to a quite extraordinary extent at Este, and

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produced a remarkable hybrid art which is one of the most distinctive characteristics of this period and region. Large-headed bronze nails were inserted into the soft surface of the clay before baking, generally arranged in designs of macanders and spirals but sometimes even outlining the figure of an animal. This process produced exceedingly handsome jars and bowls, which were no doubt regarded as only second in quality to those made of bronze.

From 800 to 500 B.C., the very time when the Villanovan culture of Bologna was at its weakest, the civilization of Venetia was growing stronger and stronger. The trade of this region was evidently with the Danube and with the interior of Italy, but in this case again it must be observed that there is no trace whatsoever of any overseas traffic. The absence of any Greek pottery and of any first-hand Aegean products at Este before 500 B.C. is a fact of capital importance. But at the end of the sixth and beginning of the fifth century there is a change. The political expansion of the Etruscans now began to have its effect through the proximity of the newly planted colonies. Etruscan motives now begin to appear and the decoration of bronze situlae and girdles is enriched by the introduction of zoomorphic and floral designs. Excellent as the work of the previous time had been it must be admitted that Atestine art comes to its finest flower as a result of this hybridization. The Etruscan situla of the Certosa is rivalled, though not equalled, by the Benvenuti situla of Este; and this in turn was the parent of a long line of Atestine situlae (plate II), which became so famous that they were manufactured for the remote valleys of the Tyrol where they originated a new and curious Alpine school. No less admirable in its way than these situlae are engraved bronze girdles, curiously different in their sophisticated style from the fine barbaric types of the eighth century.

When direct importation from Greece began to affect Venetia, which was not earlier than 450 B.C., it brought no improvement but only produced a rapid decadence. From the time when Attic red-figured vases are found in the tombs the native art declines. The Atestines seem to have had little inclination to adopt the new Greek styles, which did them nothing but harm. Presumably it was the popularity of the Attic wares which destroyed their own very interesting pottery manufactures, and by robbing them of their markets took away the incentive to production. Whatever the explanation may be the fact is certain. Atestine art in all its branches steadily declined after 450 B.C. and virtually died out in the fourth century. It was always a



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purely native civilization, of which the original roots lay in Central Europe, but which grew to its full strength and maturity on Italian soil. Its virility and independence were remarkable, and yet it was not incapable of assimilating foreign influence. The highest point of its perfection was reached under Etruscan inspiration, but it was killed by the touch of the Greek. The civilizing work of Este was confined to Venetia and the north-eastern borders of Italy ; it had little effect south of the Po. But of all the native cultures the Atestine was the longest lived. Even in its decadence it showed a singular tenacity ; Este was still alive and vigorous in the third and second centuries ; the Romans never conquered Venetia but peacefully occupied it. Down to the beginning of the Christian era the Atestines retained their own language, dress, and customs.

The fourth of the cremating nations in Italy during the Early Iron Age is the Comacine. They may be dismissed with a short notice because they did not play any important part in the development of the country though their existence as a distinct unit must be recognized. The evidence for the settlements of the Comacines begins about 1000 B.C. but is very sparse, perhaps owing to the incompleteness of exploration, for the next three centuries. When a fair amount of material becomes available for Lago Maggiore and the surroundings of Como about 700 B.C. the Comacines begin to appear as rather poor relations. They produced little of their own and seem to have been mainly dependent upon imports. The direction from which these imports came is however a matter of some interest ; it is quite significant for instance that several swords of the eighth or ninth century at Como were of definitely Hungarian patterns. From 750 to 500 B.C. the small ornaments bear so much resemblance to those of Picenum and of Istria, that we must infer there was a trade route from the head of the Gulf of Venice by which these objects passed westwards from Trieste as well as southwards down the Adriatic. Some signs of a barbaric local art begin to appear about 500 B.C. but the whole of Lombardy from this date onwards became principally a market for Etruscan products, the unquestionable superiority of which stifled any nascent local talent. This is the moment when the Etruscan export trade reached its zenith ; the manufactures of Etruscanized Bologna were now forwarded by way of the Alpine passes to the Rhine, the Ligurian settlement at Bellinzona acting as the principal transport agents.

Very different in their entire character and outlook from the four cremating nations are the Picenes and their kindred, amongst whom

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must be reckoned the Samnites. These all lived on the eastern slopes of the Apennines and along the seacoast of the Adriatic. Though some consider them to have come into the country in the Bronze Age I hold it to be a more reasonable theory that they are simply descendants of the original neolithic population. On this view then they would be like a strong reef against which the flood of Villanovan and Atestine migration beat in vain. They retained their old burial customs, and had little intercourse with their enemies on the north and west. It is in consonance with this theory that the Picenes, as soon as there is sufficient evidence to judge of them, about 800 B.C. appear as a people of very strongly marked and peculiar characteristics. Above all things they were warriors. The martial character of the Samnite mountaineers is well known from Roman history, but the equally pugnacious temperament of the Picene dwellers on the coast would have been unknown if it were not for the contents of the graves. In the typical cemeteries of Novilara scarcely a single tomb of any man is without its weapons, one spear was the minimum equipment and there were often two or three. Daggers were almost as frequent as spears ; one type of dagger was of Hallstatt derivation, the other two were of different origin. Very peculiar were the chopping swords, unlike anything found elsewhere in Italy but directly related to types known in Bosnia. Helmets were of a class which find their closest parallel in the Eastern Alps. Some variants of the weapons may have been derived from Greece after Dipylon period.

The same lesson which is taught by the weapons is emphasized by the ornaments. There is no trace of any influence from Este or the Villanovans, the whole outlook of the Picenes was evidently to the east, up and down the Adriatic. As I remarked when speaking of the Comacines there seems to have been a trade system which had its central point at the head of the Gulf of Venice. From somewhere near Trieste there were distributed torques, pendants and small ornaments of various kinds which are practically identical whether found in Lombardy, Istria, Picenum or Bosnia, but do not occur in central Italy or Venetia. Where they were actually manufactured it is difficult to say, but it is tempting to suggest that the actual makers were the Picenes, who must have needed some marketable commodity to use in exchange for all the foreign imports which they brought into their country, including amber which was used in quantities unparalleled elsewhere. Examples of Picene pendants are shown in plate III. During the sixth century a new and very important commerce can be observed along the



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coast of the Adriatic. Ionic bronzes, bowls and vessels with figurines for handles, such as the example shown in plate IV, or shield bosses ornamented with scenes of combat in bas-relief, have been found at sites near Ancona and Pesaro. In cemeteries of the same district were Greek ivory carvings and exquisite figures of animals carved in amber. The route by which these arrived is proved beyond all question, by the occurrence in the same places of an unmistakable class of geometric painted pottery which is native to Apulia. This proves that there was no direct intercourse with Greece, but that the products of Ionic art were forwarded through the Greek colonies of southern Italy. Once it had begun a steady trade was carried on between Picenum and Apulia, extending probably to Tarentum. The increase in this commerce had the effect of completely Hellenizing Picene life on its artistic side, without in any way impairing the native vigour and martial capacity of the people. The hardy Samnites of the mountains received perhaps an occasional object, for preference a cuirass, forged by a Greek bronze-smith ; but they despised luxuries or were too poor to buy them ; so that it is only among the Picenes of the coast that real civilization has been found.

Although it is only possible to speak with any certainty or clearness about northern and central Italy yet there are some hints of the vanished nations of the South which should be recorded. In the main the civilizing of the South in pre-Roman as well as in Roman days was the work of the Greek colonies. Not only Cumae, to which perhaps too much credit has been given owing to its proximity to Latium, but the whole chain of cities of which Tarentum was the most widely influential spread Greek culture far and wide. But there were indigenous races living in the hinterland, inhabiting the mountains of Bruttium and Lucania as well as the coastal plains of Apulia, which had reached a certain level of barbaric civilization before their subjugation by the Greeks. The veil has been half lifted from the romantic history of the Siculans who lived near Locri Epizephyrii. Here on the mountain plateau of Monteleone, and on the steep hill confronting the citadel of Locri, were the settlements of the pre-Hellenic people who were ultimately conquered by the Locrians. Their cemeteries date from the ninth or tenth century B.C. to the seventh and sixth, and reveal a culture quite different from anything hitherto described. It is too early as yet to formulate a theory of its history and affinities ; but the complete independence and isolation of this people from central Italy seem beyond question. Probably the vitalizing spark was brought to this

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rather primitive population by early explorers from the Aegean before the definite establishment of actual Greek colonies.

In Apulia archaeological exploration has been so slight that there is no information of any kind for the Iron Age before the seventh century and even after that time little is known except the pottery. Nevertheless a study of the pottery reveals a certain amount as to the native character and genius of the peoples whom the Romans knew as Daunians and Peucetians. The independence of these two tribes and their constant reassertion of their own personality against every onslaught of the foreigner is just as remarkable in their art as in their political history.

Their painted pottery shows conspicuous original genius with a most unusual appreciation for the qualities of decoration and design. It is interesting to note the difference in temperament between Peucetian and Daunian, the one so grave and ascetic, the other so fanciful and versatile. Nothing more clearly demonstrates the tenacious vitality of the Daunians than the renascence of Canosa in the third century (plate v). The little city refused to be swamped and raised itself to the position of a leader in the Hellenistic art-world.

Elsewhere in Italy however the fourth century saw the mingled tides of Etruscan and Greek art sweep over the whole peninsula and drown the older indigenous civilizations. These were not all of equal value, the most important and the most highly advanced were certainly the Villanovan and the Atestine. The Villanovan was gradually transmuted into Etruscan and lost nothing in the process; the Atestine seems to have died and left no heir. For five hundred years the several nations which made up the mosaic that we call Italy of the Iron Age had prepared the way; by the year 400 B.C. their work was done. The levelling plough of late Hellenism passed over Italy and was followed by the Pax Romana.



# Two Great Dolmens of Central France

by VICE-ADMIRAL BOYLE SOMERVILLE

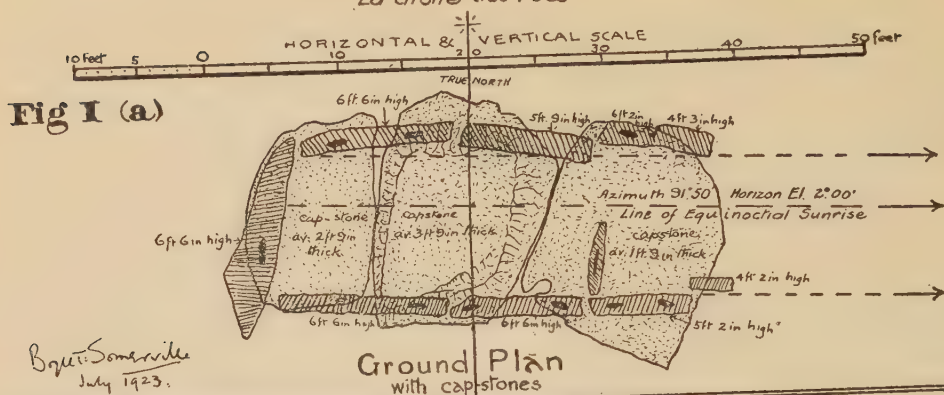
THE visitor to Tours, having exhausted himself, as is soon and easily possible, in 'doing' the chateaux of the Loire, may find refreshment for his jaded brain by passing from history to prehistory, and turning back the pages from 1500 A.D. to 2000 B.C. or thereabouts, which he may do in the course of two short journeys from his hotel.

There are many prehistoric remains in the département d'Indre et Loire, and in the arrondissement of Tours alone there are 9 dolmens.

The first of the two described in this paper is situated 10 kilometres from Tours by road. The other, though not in the same département is within easy rail distance from Tours, and adjoins the town of Saumur.

The name 'dolmen' is here employed, since this is the official term in France for the form of prehistoric structure to be described, but 'burial chamber', our own term, is certainly more suitable for these two monuments, as will be realized from a study of the accompanying plans (figs. I and II). At the same time, they are, on the whole, unlike anything of the same nature to be found in the British Islands, though they have their counterparts in Brittany, and elsewhere in France. They are also on an enormously greater scale than anything to be seen on our side of the Channel. The casual visitor to a megalithic monument can often be disappointed on seeing what appears to be merely a jumble of largish weathered stones among the heather or grass, or on finding an uncouth structure, so badly ruined and robbed from as to make but little appeal as a 'sight'. He will find no disappointments of this sort at either of the places here described. In each case, though emptied of their original contents, and with but vestiges remaining of the covered alley-way forming the entrance to these tombs, the actual burial chambers stand erect and complete; the stones of which they are constructed being of a vastness that has defied robbers. They require to be seen to be appreciated, and to be measured with a tape in order to be believed in. Moreover, if the archaeologically minded visitor will take with him a prismatic compass

FRANCE - Département d'Indre-et-Loire - near Tours  
 Latitude 47° 27' 45" N. Longitude 0° 38' 54" E  
**DOLMEN de SAINT ANTOINE ou ROCHER**  
 "La Grotte des Fées"



(b)



North Elevation View

(c)



South Elevation View

(d)



West Elevation View

(e)



East Elevation (Entrance) View



## TWO GREAT DOLMENS OF CENTRAL FRANCE

as well as a tape, he may see for himself that these immense structures are not fortuitously placed on the ground, but that their plans are definitely and exactly orientated to the sunrise points of certain days of the year ;—the same sunrise points found in the orientations of prehistoric burial places in Scotland and Ireland—whatever may have been the significance of these dates in regard to the dead of either country.

(1) DOLMEN DE SAINT ANTOINE DU ROCHER. (Fig. 1, a-e). This dolmen is named from the commune in which it stands ; but it is considerably closer to the village of Mettray than to that of S. Antoine, and anyone intending to visit it from Tours should name Mettray in seeking guidance, and refer to it as 'La Grotte des Fées', its local name.

There are not many people in Tours able to direct one correctly to the site, though the road is neither difficult nor obscure ; but it is likely that a guide might be obtained at the Syndicat d'Initiative whose office is in the Rue Nationale, where it is advisable to get a conveyance. It is possible to reach Mettray by train, if desired, but the trains are not very conveniently timed for visiting the dolmen, and there is still a walk of about 3 kilometres from the station to the site. On the other hand, it is possible to go direct from Tours by good roads in either a horse or motor conveyance to within a hundred yards of the place.

The following route instructions may be found useful in directing the *cocher* or *chauffeur*, as the case may be, and to supplement the information given on the Michelin map of the district (no. 19 Tours) on which the position of the dolmen is marked. Leave the town by the Pont de Tours, and having crossed the bridge go straight on up the steep hill facing you to the Plateau de la Tranchée, where there is a small 'Place', having as its centre an ugly war memorial. Two roads lead from this point, to the left and to the right, each bordered by houses. Take the road to the left, which is the larger of the two. Mettray may be reached by continuing straight along this road ; but a pleasanter, and less motor-frequented road—no longer in point of distance—is found by taking the first turning to the right off it, still between small houses. This road soon bends round to the left and reaches open country. After running fairly straight for about  $2\frac{1}{2}$  kilometres, a point is reached where it branches into two forks. Take the left hand fork, a rather narrow and bending road, which first crosses

## ANTIQUITY

the railway, and then passes a pleasant wooded place with houses, where is an agricultural reformatory for boys, named Colonie de Mettray. Mettray village is reached after another kilometre. It has in it a large and conspicuous church. Turn sharp to the right past the church, taking the road to Saint Antoine du Rocher. This road touches the railway track at one point, and then bends northward among grass-lands, with a quiet stream running through them, until, at about 2 kilometres from the church, you can see on the right, in the middle of a large field, a circular grove of trees, like an island in its midst, with, just beyond it, a farm establishment (La Choissille), and a mill by the stream (Réchaussé). A gate on the right of the road opens to the farm road leading to these houses. Enter by this gate, and after two or three hundred yards along the road you will be abreast of the grove of trees before mentioned. Leave the carriage at this point and walk along the little path to the grove, in which, completely hidden and protected by the trees is 'La Grotte des Fées'.

The dolmen consists of a single chamber, 30 feet long inside, 11 feet wide, and 6 feet high to the flat roof. At first sight it seems so regular, so rectangular, and complete as almost to be uninteresting, and to lack the air of romantic strangeness and forlornness proper to dolmens. But when the mode of construction is realized, and the age for which it has been standing is remembered, there can be no thoughts but of admiration and of wonder. In spite of its dimensions as a structure, it is composed as to walls and roof of only 10 stones, namely, three great slabs for each wall, one more closing the western end, and three monstrous blocks, fairly flat, forming the roof. The wall-slabs are each of them about 10 feet long, 6 feet high, and 18 inches thick, while the end slab is 16 feet long and at one part is 3 feet thick, but great as these are they seem almost puny by the side of the three capstones. The two eastern of these are each 17 feet by 13 feet, while the western is 10 feet by 13 feet ; and as to thickness, the centre stone is 4 feet thick in most parts, and weighs between 50 and 60 tons, while the other two are from 2 to 3 feet thick, and are each more than 20 tons in weight. There is no sign of actual trimming on the surfaces of any of the stones, but the hard, dark brown, calcareous rock of which they are composed seems to have been broken off in slabs when quarried, in such a way that the opposite faces should be roughly parallel surfaces, and be possessed of some degree of flatness. It is not possible to say where these great slabs were quarried, but they stand on flat, alluvial land, and the nearest rocky hill is about half a kilometre distant ; so



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that, almost certainly, they were conveyed for that distance at least, after quarrying.

Two other stones comprised in the structure remain to be noticed. The first of these is placed upright at right angles to the southern wall, at about six feet within the chamber from the eastern end. There was probably originally a similarly projecting stone from the opposite wall, leaving a central space between them to form a 'door-way', which would be closed by a third stone. (See plan of the Bagneux dolmen, where this feature remains, fig. II a, e). The second stone to be mentioned is also on the southern side, but outside the entrance. It is placed so as to continue the line of the southern wall of the chamber, but as it is only about 4 feet high, it seems likely that it is the last remaining stone of a former *allée couverte*, or way of approach, leading into the burial chamber itself, and not part of the tomb, properly considered. A lower entrance-way of this nature is a usual feature of the dolmens of Brittany, and elsewhere, though the dolmens themselves are somewhat different in construction, and not as a rule so rectangular in shape.

A final, and certainly a fundamental fact with regard to the erection of this burial chamber remains to be noticed, namely, its orientation. The long sides of the vault are parallel to one another, and have been placed aligned in the ground on the azimuth  $91^{\circ} 50'$ . This angle is consequently the orientation of the whole structure, from end to end. The sky-line in that direction is a flat hill-crest, fairly close to the dolmen, crowned with trees, and from it is at an elevation of  $2^{\circ} 00'$ . This azimuth and elevation combined trigonometrically with the latitude of the site, *viz.*,  $47^{\circ} 28' N$ , indicate precisely the line of apparent sunrise on the days of the equinoxes (21 March and 21 September of our calendar); dates which are constantly indicated in similar fashion in the orientation of prehistoric structures in the British Isles, showing that there must have been some connexion between these days of the solar year and the burial of the dead.

### NOTES

There is an excellent scale model of this dolmen (La Grotte des Fées) to be seen at the Musée at Tours, originally made for the National Exhibition of Tours, held in 1892.

A description, with measurements (no plans or photographs) will be found at p. 41 of *Les Monuments mégalithiques de la Touraine* by Louis Bourez, 1894. This states that there are no existing accounts of excavation having been undertaken in the (earthen)

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floor of the chamber of the dolmen, nor any record of articles ever having been found in it. It is also stated that traces of the tumulus which formerly covered the dolmen are still visible (1894). It is possible that the grove of trees now surrounding the dolmen marks the extent and boundary of the mound ; but no other real indications were visible in 1923.

(2) LE GRAND DOLMEN DE BAGNEUX. (Fig. II, a-e). The town of Saumur is about 60 kilometres from Tours, and, like Tours, is built chiefly on the south bank of the Loire. It is reached from Tours in about  $1\frac{1}{4}$  hours by train. The railway station of Saumur is on the north side of the river, and a straight road leads directly from it to Bagneux, which is a suburb of Saumur, and about 3 kilometres from the station. The road crosses the Loire past an island in the middle of the river, upon which part of the town is built, then straight through Saumur itself, and after passing over a second bridge crossing the small tributary stream Thouet, leads through Bagneux. Here the road divides ; there is a large new church on the left, and opposite it, on the right hand side of the right hand road there is a small cottage at the end of a row of detached houses, with a front garden, bearing a notice-board that tickets for visiting the Grand Dolmen are obtainable within. There is a trifling charge, and you are then directed through the garden to a small open space on the left of the house, sprinkled with trees, among which stands the dolmen.

It is a structure of exactly the same style as that of Mettray, described above, but it is twice as large in plan, and greater in every way. It is an astonishing sight. It is said to be the largest dolmen in existence, and it is likely that this is the case. The interior space covered by the capstones is 61 feet long, about 16 feet wide, and from 8 feet 6 inches to 9 feet high. The chamber is constructed of 13 gigantic stones, of which 4 form the northern wall, 4 the southern wall, one closes the western end, while the roof is formed of 4 capstones, each about 2 feet thick. Of these, the westernmost is 23 feet square, the second 23 feet by 12 feet, the third 23 feet by 18 feet, and the easternmost is 17 feet by 9 feet. Either of the first three would floor a good-sized room. A ladder is provided at the cottage by which one may get on top of the dolmen, and on doing so, the sight of this row of immense flat stones, laid evenly, like a pavement, on supporters, at a height of nine feet above the ground, is one to stir feelings of the most profound wonder. They must surely be among the largest stones in the world to have been hewn and raised into an edifice by man at any epoch of history or prehistory.



## TWO GREAT DOLMENS OF CENTRAL FRANCE

The interior is a single undivided chamber resembling a cave—a cave-tomb for a cave-man. For about 45 feet of its length from the western end the walls of the chamber are parallel, but the two easternmost slabs, each about 16 feet long, are set in the ground so as slightly to incline towards one another towards the entrance, and thus the interior width of the chamber is diminished from one of 16 feet to the westward of these slabs to one of 13 feet at their eastern end. At a distance of about 3 feet inwards from the entrance there are 2 transverse slabs reaching to the roof, each 4 feet 6 inches wide, which are set exactly opposite one another so that a space, also 4 feet 6 inches wide, is left as an entrance, or 'door-way' between their inner edges. A fallen slab, 9 feet square, lies flat on the ground in front of this entrance way, and may possibly have been the 'door' which closed—and overlapped—the opening to the vault. Modern masonry, with wooden door-jambs and a door have been placed at this entrance to close the place against intruders.

Inside the chamber, at one point on its central line there is a single upright slab evidently placed to be a support to the eastern end of the great western capstone. It is set with its sides parallel to the sides of the chamber, and has no appearance of having formed part of any interior partitioning. The only other object to be seen inside the chamber is a recumbent pillar-stone, 7 feet 6 inches in length, which lies with its side placed along the southern supporter of the second capstone from the western end. It is too short by eighteen inches to have been a supporter of the roof at any point, and probably is one of the exterior stones of the monument, carried to its present position for safe-keeping, for it performs no structural function as it lies.

Outside the chamber, at the eastern end of the northern line of supporters there are two slabs which continue the line of the wall on that side, but at half its height, namely at about 4 feet 6 inches from ground level. Facing it on the southern side there is a largish slab fallen flat on the ground. These stones are, no doubt, the remains of the *allée couverte* which once formed the entrance-way to the burial chamber, of which the other stones, both supporters and covering slabs, have disappeared.

The northern supporter of the great western capstone has, at one part of its outside surface, a series of deep corrugations, which appear to be artificial. Near these are two depressions in the face of the stone which strongly resemble cup-markings. One of these, placed at about 7 feet from the ground, is almost certainly not

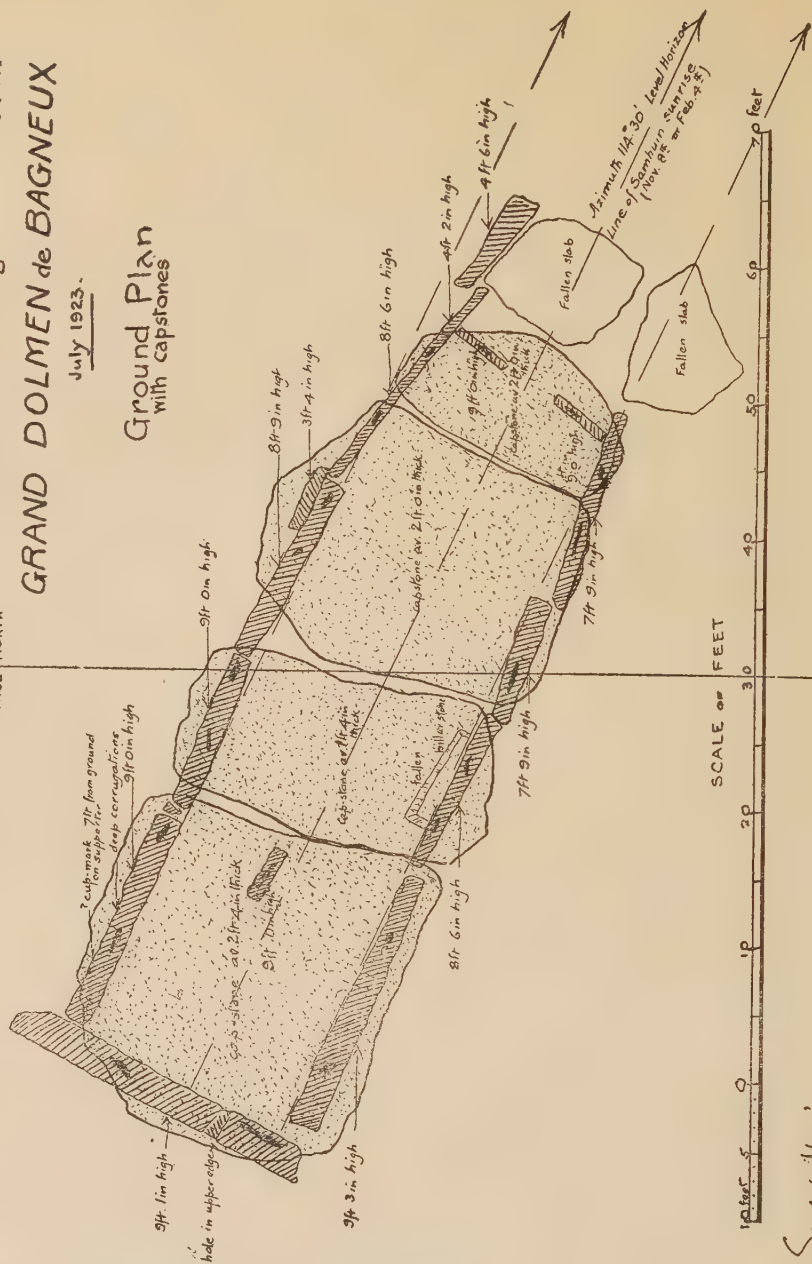
Fig 2 (b)

FRANCE

Departement de Maine-et-Loire—near Saumur  
Latitude 47° 14' 40" N, Longitude 0° 06' 11" W.

July 1923.

## Ground Plan with capstones



Bapti: Sonerville:



*GRAND DOLMEN de BAGNEUX*

**Fig II (b)**



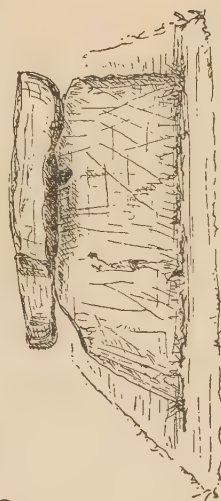
North Elevation View

(c)



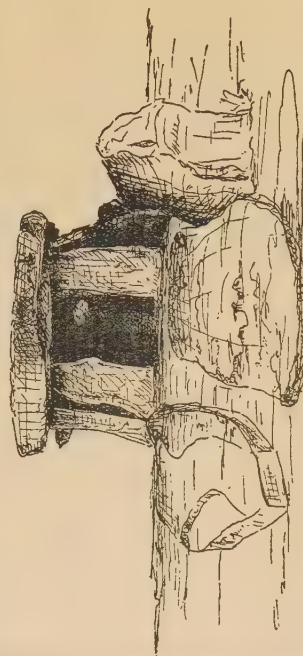
South Elevation View

(d)



West Elevation View

(e)



East Elevation (Entrance) View

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a natural pitting of the stone surface. The other, nearer the ground, may be so:

The only other exterior stone requiring notice is at a point on the outside of the northern wall, where, at the eastern end of the third supporter a triangular slab, 3 feet 4 inches high, is planted with its inner face flat against that of the supporter, apparently meant to supplement the wall at that point. No doubt this is an original feature, though the supporter itself, a great slab 14 feet long, 9 feet high, and nearly 2 feet thick stands to its work as firmly and solidly as the remaining upholders of the capstone roof of the chamber (which taken as a whole weighs over 190 tons), and appears never to have been in need of this assistance.

The north and south walls of the chamber have each a slight inward batter, no doubt intentional, and the capstones on each side are made sufficiently wide to overhang their supporters in most places by about 18 inches. The great single slab which closes the western end, 24 feet long and  $2\frac{1}{2}$  feet thick, has similarly been given batter, which the capstone overhangs. It is probable that this inward slope to the supporters all round has largely contributed to the stability of the structure, as it was intended that it should, and that the overhang of the capstones, also intentional, has prevented rain from falling directly on the foundations and sapping them; so that the whole edifice stands as rigidly erect today as it did when it was constructed long ages ago; a model of trabeated architecture.

The orientation of the monument, though to a different point of the horizon from that employed at the Dolmen de Saint Antoine du Rocher, is equally definite and exact. The north and south walls are for the greater part of their length parallel to one another, and are each of them on the azimuth  $114^{\circ} 30'$ . This angle is therefore that of the central line of the chamber, passing through the 'door-way' at the eastern end. The horizon in that direction is level with the observer's eye (elevation  $0^{\circ} 00'$ ). Combining this azimuth and elevation with the latitude of the site,  $47^{\circ} 15' N$ , gives (precisely) the line of apparent sunrise on the half quarter day in November or February, when the sun in its yearly path is at the mid date between the winter solstice and the equinox (on either side). The present calendrical date is 8 November or 4 February. It is interesting to note that this also is a fairly frequent orientation in Scottish and Irish prehistoric monuments. The date itself is, to some extent, still remembered in



## TWO GREAT DOLMENS OF CENTRAL FRANCE

Gaelic countries, though now transferred to 1 November, and has the special name 'Samhuin'. In England too and elsewhere a recollection remains of its connexion with the dead, in the festival of All Souls, and of 'All Hallow e'en'. The half quarter day of February has lost its observational features, if it ever had them.

There are no remaining traces at Bagneux of the tumulus of earth that, no doubt, at one time covered, and probably also filled the chamber, interring the dead within it. The present floor is of earth, and there are no signs of excavation having taken place, at all events within recent years.

No one with the least imagination can regard these works of primitive man at Mettray and at Bagneux without amazement. The amazement becomes bewilderment when the actual measurements of the stones of which they are constructed is taken, their weights calculated, and the consideration is brought home to one that they have been standing in their present attitude, unmoved throughout at least 4000 years, and possibly for even longer. No doubt they have to some extent been supported and protected by the mound of earth that once enveloped them, and filled the chambers of the dead, now empty and exposed to wind and rain; yet even so, when we consider the architectural efforts of civilized man, and the constant repairs and efforts necessary to keep them erect, we may feel a new interest in considering what may have been the cultural state of mankind of the Neolithic Age in Western Europe which could leave monuments of such permanency to be its witness. There can be no doubt but that these structures are places of burial, either for a single great person, or for a whole family or clan; yet what form of ancestor worship, or what exaggerated fear of the ghosts of the departed, can have compelled the men of those days to face the tremendous labour implied in their erection? Without any knowledge on the subject, we suppose them to have been devoid of all forms of mechanical appliances, excepting the very rudest, and to have been dependent solely upon 'brute force'. Yet when we consider the practical problems presented in the construction of these tombs, the quarrying, the transportation from some distance to the chosen site, the erection of the supporting slabs, above all, the lifting and correct placing in position of the immensely heavy capstones, so that they should rest level on the edges of their supporters at a height of several feet above the ground, we cannot but feel certain that some knowledge of how to deal with heavy weights

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that they possessed has been lost to mankind. One has only to look at the photographs of the appliances necessary in modern times merely for the re-setting upright of the 'leaning stone' at Stonehenge,—the great balks of timber, the carpentered frames, the ropes, the chains, pulleys and differential tackles, and a steam engine—to realize that this is the case. Mr Stone, in his book on Stonehenge has given an interesting practical exposition of how the necessary work of transport and erection may have been done in that case by sheer man-power, aided only by trunks of trees for rollers, and ropes (presumably of hide). But, we may ask, how were those great trees felled for this purpose by people possessed only of stone implements, and how many aurochs was it necessary to catch and slay with stone arrows and clubs in order to provide the great lengths of hide rope required for the transportation and subsequent erection of these massive blocks of stone, and where is the prepared road of transportation specially laid to prevent the pillar stones and their rollers from sinking into the soil on their way to the place of erection? The average weight of the Stonehenge pillars is said to be about 26 tons, and the lintels  $6\frac{3}{4}$  tons, but these are small affairs by the side of several of the capstones of Mettray and Bagneux described above. A cubic foot of limestone weighs  $156\frac{1}{2}$  lbs., and if this be accepted as the standard of weight of the 'calcareous' rock of which both these French dolmens is built, the centre capstone of Mettray will be found to weigh over 56 tons, and the two others 24 tons each. These weights of the Mettray capstones, great as they are, sink almost into insignificance, however, by the side of those of the Grand Dolmen at Bagneux. The western capstone of this monument weighs no less than 86 tons, by the above standard of weight per cubic foot, and the others are 33, 55, and 18 tons respectively, making a combined weight of 192 tons, all of them having been raised through a height of 9 feet from the ground.

In respect of man-power for the manipulation of these weights, it would require at least 30 and probably 40 men to move one ton of rock along a rough road, aided only by levers and rollers. This would entail the employment of about 3,000 men for the moving of the great western capstone of Bagneux, alone, over flat ground; and more still if the weight had to be dragged up an inclined plane (as the method is supposed to have been) to place it on its supporters. There might be space in the surrounding country for the manoeuvring of such an army, if it could be mustered for the purpose, but how could its strength be concentrated and applied to the block of stone so as to move it?



## TWO GREAT DOLMENS OF CENTRAL FRANCE

No rope of any description would stand the strain, rollers of logs would be crushed into match-wood, and levers broken short off directly it was attempted. We are in the presence of a mystery. Men of the neolithic period, so far as we can tell, were men of like stature and strength with ourselves. There may have been 'giants in the land in those days', but hitherto no traces of their bones have been found, and though many of their graves are still popularly referred to as 'Giant's Graves', on account of their great size, the idea cannot be credibly entertained that such super-men actually existed. Was the urus, the aurochs, or the horse sufficiently tamed in those days to be brought to the task of haulage? The mammoth and the elephant (if ever domesticated) had by that time no doubt disappeared from off the land; and even if any or all of these animals were employable, the problem of the application of their strength to the heavy masses of rock, as they lay in the quarry or on the ground, remains to be solved.

One thing is clear, namely that the men of Western Europe of those ages cannot have been the complete savages that the neolithic men of the present time are (in the South Seas, and elsewhere), for not only had they the knowledge and the means to design and construct these massive tombs, to hew the stones from the quarry to a required dimension (for all had to be made to fit, however roughly it may seem to us, with one another, supporters with capstones), to transport them, and to erect them at the desired site, but also they had sufficient knowledge of astronomical affairs, of Times and Seasons, to lay their tombs out on the ground in specific and definite directions, to accord with certain moments in the annual path of the sun (and perhaps of the stars also), through the heavens. Nor can we doubt that they had assured views on the continued existence of man after death, or else why did they build these massive prison-houses to preserve in safety his bodily remains? Perhaps, even, they considered the possibility of his future resurrection? It is only by close and intensive study of their remaining monuments, wrecked, and rendered still more difficult to understand as they have been by the ignorant (if 'civilized') of our own times that we may hope ever to recover the knowledge of all kinds that they possessed, now lost and forgotten.

### NOTES ON THE FIGURES

The surveys of both dolmens were made by clinometer-compass and tape-measure; and were each plotted on a scale of  $\frac{1}{10}'' = 1$  foot (1 : 120).

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Variation of compass (1923) at Tours,  $12^{\circ} 20'$  W, and at Saumur,  $13^{\circ} 00'$  W.

In the ground plans (a) the section of supporters at ground level is shown shaded in diagonal lines, and the positions where the capstones rest on their supporters in solid black.

The outline edge of capstones, as seen in plan, is indicated in plain black line, and their surface-extent by small dots.

In the elevation views the shapes and sizes of the stones are drawn to scale ( $\frac{1}{16}'' = 1$  foot), but the details of surfaces, etc., are sketched.

The positions of trees that surround and closely adjoin the dolmens in both cases are, for the sake of clearness, omitted. In the case of the Grand Dolmen at Bagneux, the details of the modern door-way at entrance to the chamber are omitted also.

In figs. I and II (a) the heights of supporters there shown are in all cases taken from *inside* the chambers. In both cases the ground outside the dolmen is somewhat irregular, while that inside is flat and even.



# The 'Children of the Sun' and Central America

by ERIC THOMPSON

THE theory that American aboriginal civilization was derived from south-east Asia and indirectly from Egypt has received such wide publicity that it is no longer possible to dismiss it without refutation and wait for it to die a natural death. Such was the policy followed when the extravagances of Lord Kingsborough claiming that the inhabitants of Central America were the lost ten tribes first saw the light. Le Plongeon's fantastic claims too had their hour and then passed into the limbo of lost causes. Other heads of this hydra, peopling Central America from the lost continent of Atlantis, from Babylonia, Africa, New Zealand, Easter Island, and in fact from nearly every quarter of the globe, were not lopped off but left to wither away from lack of that blood, so necessary to this type of hydra—reasoned argument and proof.

However, the natural decay, which would otherwise have overtaken before now the wild flights of the 'Manchester School' into Central American archaeology, has been staved off, and in fact almost replaced by rejuvenation, thanks to strong injections of publicity.

It would be well then to take up several of the arguments of Professor Elliot Smith and Mr Perry, not as an ardent defender of the Monroe doctrine of American archaeology, but as a means of seeing how far we are justified in adducing an outside origin for part of American culture.

The 'Children of the Sun' are claimed to have wandered across the world in search of gold, and other precious metals, and pearls and pearl-shell. Mr Perry in a series of somewhat defective maps of the Pueblo area adduces that they generally settled close to districts rich in metal or semi-precious stones. As the impetus of the movement was, on his own theory of degeneration, much stronger in earlier times, it would be as well to turn to the Maya area, remembering that Mr Perry scoffs at the idea of an earlier Maya culture ante-dating the dated old empire cities.

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The oldest known Maya dates have as their provenance the city of Uaxactun. Uaxactun is situated in the Peten area, a low-lying limestone country, unblest with any mineral except small quantities of flint, and without even streams from which pearl or pearl-shell might be obtained. The next earliest Maya sites are the cities of Tikal, Naranjo and Copan. Of these Tikal and Naranjo are in the same position as Uaxactun, entirely deprived of those very objects to obtain which the 'Children of the Sun' crossed half the world. Copan alone is built on the banks of a river, and in an area where minerals in small quantities may be obtained.

It is extremely doubtful if the Maya of the old empire were acquainted with any metal. The only gold object ever claimed to have been found in an old empire site is a portion of a cast gold bell from the Waldeck collection now in the British Museum, which is said to have come from Palenque. The art is thoroughly un-Maya, and the majority of Mayologists reject it as an artifact of the old empire Maya. There is a possibility that it was a surface find belonging to a much later period, or possibly it was obtained at some other site. Waldeck was so notoriously inaccurate, that the scientific necessity of taking the trouble to note the provenance of, and the circumstances in which, an object was found would have weighed little with him.

No copper or bronze object has ever been found in an old empire burial or *in situ* in an old empire site, and although the evidence is but negative, it is nevertheless fairly convincing that the early Maya were likewise unacquainted with these metals. Had objects of bronze, although known, been of considerable rarity and therefore not buried with the dead, surely they would be found with the caches of jadeite found beneath several of the stelae at Copan. On the other hand copper axes, celts and bells, and objects of gold are found at the later sites of the new empire, which flourished long after the old empire cities had been abandoned.

In addition to the search for metals, precious stones, pearls, etc., the 'Children of the Sun' established Sun worship as the state religion wherever they settled.

Again Mr Perry travels far from the new world centre from which he believes the heliolithic civilization radiated, to obtain his evidence of the Sun-cult. The monuments of the old and new empire, the codices, the writings of the Spanish conquerors and modern ethnological work show without any doubt that the Sun was never during the whole course of Maya history considered the chief deity. In the Dresden



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codex the appearances of the chief deities are as follows :—god B 141 times, god A 33 times, god D 19 times, god C 17 times, god E 14 times, god G (the Sun god) 6 times. In the Tro-Cortesianus codex the Sun god does not figure at all. In southern British Honduras, where considerable traces of the old religion still exist among the Maya speaking Indians, the Sun is completely ignored, but worship is paid to the gods of rain, thunder, Venus, and Itzamna. In the same way in the northern part of the colony and in Yucatan the Sun is not the centre of a cult nor the recipient of prayers.

The evidence for the existence of the dual organizations among the Maya brought forward by Mr Perry is almost invisible. Far be it from the writer to attempt to deny that the Maya social order was founded on the dual organization. But Mr Perry deduces the dual organization from the fact that the general of the army, who held his post for a period of only three years, and a junior grade of priests, whose duties though permanent were confined to the task of holding down the victims for sacrifice, bore the same name. If this is admitted as proof, the fact that the head of a big religious organization in England and the head of the army bear the same title should prove with even greater weight that England is organized on the dual basis.

The food plants of the new world provide overwhelming evidence that agriculture must have existed long before the Cambodian culture rose in south-east Asia. Certainly more than two thousand years were required for the development of the cultivated maize plant from its wild ancestors. If it is argued that knowledge of agriculture was introduced from Asia, the art would have been lost long before native plants could have been reduced to cultivation. If on the other hand the old world food plants were introduced, why have they disappeared? Wheat, oats, barley, etc., proved highly successful when introduced by the Spaniards. Furthermore, and this is an important point, the method of sowing maize is entirely different from the method employed in sowing the grasses of the old world. If the maize plant had been first cultivated by immigrants from the old world used to old world methods of cultivation, it would presumably have been sown broadcast, for the wild species is a grass. Actually the method of sowing employed from the Rio Grande to the Rio de la Plata is the same. The seed is sown either singly or two or three, or four, seeds in holes about two feet apart. Sown broadcast the maize plant would have developed along entirely different lines, probably as a short multiple-branched plant.

Mr Perry postulates the planting of these new kingdoms of the

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' Children of the Sun ' in new lands accompanied by an ephemeral burst of culture which gradually degenerates as connexion with the mother country is lost. The cultural stimulus of the older centres is withheld from the young shoots, the young plants droop and gradually fade away. It is unnecessary to compare the early old empire period of the Maya (8-15-0-0-0 to 9-10-0-0-0) with the second half of the 9th cycle—the progress registered is too obvious to be discussed and furthermore has already been dealt with by Dr H. J. Spinden in *Maya Art*. However it has been stated on so many occasions that after the fall of the old empire Maya history is one long tale of degeneration that this belief has received full credence in many quarters. It would be well then to make a more detailed comparison before accepting such sweeping statements. A comparison of Maya culture at the height of the old empire with the Maya-Toltec culture that flourished just before the disappearance of the new empire, before the inroads of civil war and the Spanish invasion, reveals the latter in no unfavourable light.

In architecture great progress had been achieved. The typical temple of an old empire city such as Palenque, was apart from its sculpture quite unpretentious. As a rule it consisted of one, two or three small rooms entered by one single door. The walls are abnormally thick. The fact that, as a rule, the temple is provided with only one narrow door meant that the interiors were very obscure, damp, uninviting rooms. The early new empire buildings are in the same style, but progress is shown by their larger size. The ' Monjas ' at Chichen Itza is typical of the period—a three-storied edifice covering a considerable area. However in late new empire times Maya architecture under the impulse of Toltec inspiration registers great progress. The narrow doorways, through which only a dim light can filter, disappear. Their place is taken by entrances three or four times as wide, divided by columns to take the weight of the lintel. Instead of the obscurity of the old empire buildings these temples are flooded with light. Furthermore the rooms increase in size, whereas in the old empire they rarely exceed twelve feet in width. In late new empire times the vaulting of the false arch is carried on wooden beams supported by pillars, enabling the rooms, instead of being confined to a width of between twelve and sixteen feet, to be extended to whatever width the builders care to make them. The dull solidity of the old empire has been replaced by an airy lightness of touch.

In sculpture the output in the late new empire times is greater than in the old empire, but conventionality replaces the free touch of

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Yaxchilan or Palenque. This is not due to degradation but to changed religious concepts. The feathered serpent-god has ceased to be the centre of an esoteric cult, and has become the vulgarized head of the state religion. Conventionalized feathered serpent- and rain-gods are represented everywhere, but where the sculptor has been able to escape from these subjects he compares favourably with his ancestors of the old empire. The animal frieze around the pyramid of the Temple of the Warriors at Chichen Itza shows that late new empire art need not fear comparison with that of the old empire.

Metals, it has already been pointed out, were probably unknown to the people of the old empire. They were used in new empire times. The use of metals has always been considered to mark one of the great advances in the history of mankind.

In the minor arts the ceramics of the new empire possibly reached as high a level as was attained by the pottery of the old empire. The old empire calendar continued to function unimpaired up to the arrival of the Spaniards. The only change was the substitution of the abbreviated short count for the cumbersome long count. Mayologists are apt to consider this a step backward, but their judgment is influenced by the extra trouble which the short count causes in any correlation of Maya and Christian chronologies. Actually the short count is as great a step forward in concise brevity as was the substitution of Arabic for the old Roman numerals.

Grounds on which a comparison of the two periods can be made, are unfortunately few, but enough has been said to show that the Maya-Toltec period, far from marking a degeneration from old empire times, actually shows a definite advance over the latter in several of those few cultural elements which lend themselves to comparison.

The discovery of pottery of types akin to those of Teotihuacan at Maya old empire sites, and the fact that Maya jadeite and shell-work has turned up at the Toltec sites of Teotihuacan and Tula would seem to show that those two civilizations were contemporaneous. The historical and chronological evidence supports this contention. Now excavations in the valley of Mexico have yielded definite stratification showing that the primitive archaic civilization is earlier than the Toltec, which of course in its turn is older than the Aztec. The 'archaics' made fairly good pottery and crude hand-made figurines; they built pyramids, wove good textiles, but, (though we must again rely on negative evidence) they were unacquainted with metals, and paid little attention to the serpent cult. The archaic culture flourished too in the



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highlands of Guatemala, and though good stratification has not yet been obtained, Dr Gamio in the course of his excavations during the 1925-1926 season outside Guatemala city obtained evidence of the modifications the archaic culture underwent during its development into classical Maya.

We can then postulate a gradual development from the archaic period up through the classical times of the late old empire to the new empire established in Yucatan. This development was broken by a period of stagnation and possible degeneration in early new empire times and a very obvious break-up due to civil war and plague just before the Spanish arrival.

Points such as the absence of the wheel, the true arch, iron, the outrigger, the true glaze have already been laboured so fully as to need no comment in this paper. The Maya calendar and hieroglyphics resemble nothing produced by any Asiatic or African civilization.

To summarize the case against the school of Elliot Smith and Perry: (1) against all evidence the 'Manchester school' claims that the known Maya sites are the earliest on the American continent. Even if that is granted the seekers of pearls, pearl-shell, gold and other metal settled in singularly inauspicious localities; (2) strong negative evidence points to the fact that the old empire, Maya and the archaics were unacquainted with metals of any sort; (3) Sun worship never played a predominant part in the religion of the Maya, or archaics; (4) the agriculture of the new world shows no evidence of Asiatic origin; (5) the frantic desire to make the facts fit the case has led to the production of ludicrous evidence for the dual organization; (6) the 'Manchester school' theory of degeneration is not applicable to Central America; (7) the absence of the wheel, the true arch, iron, outriggers, and the true glaze points to no communication in late times; (8) the utter lack of resemblance of the Maya calendar and hieroglyphs to anything outside the new world is also a stumbling block.

On the opposite side, if we ignore the many extravagances, there is a case to be met. Fundamentally the Maya religion would appear to be plain nature worship, with the idea of duality and the eternity of time supplying the mystical side. Monsters, dragons and double-headed serpents would appear to have little connexion with such religious ideas, yet although relatively rare in the archaic and early Maya cultures, they appear very frequently in late old empire times and certainly would appear to have an Asiatic air when stripped of their purely Maya features. True turbans such as are found on some of the

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subsidiary figures on late old empire stelae and notably on a small figurine from Tabasco (*Tribes and Temples*, Erans Blom, Tulane 1926, fig. 81) certainly are very Asiatic in appearance. The elephant controversy is too deep a subject to be entered into in this paper, nevertheless the Yalloch vase is a difficult thing to be explained away by non-believers. The Aztec backgammon game described by Tylor is further strong evidence of Asiatic influence. So too is to a lesser extent the purple dye industry. On the other hand the fact that pyramids were used in the new world is no evidence of Egyptian influence. 'The Egyptian Pyramid', as Joyce so aptly puts it, 'was itself the building—a tomb; the American pyramid was an accessory—a platform on which to erect a building or an altar'. If Professor Elliot Smith and Mr Perry had had the opportunity of visiting a Maya site they would realize that raised structures are a refuge from the innumerable insects of Central America, and on their summit one can often enjoy a quite perceptible breeze—a far better reason for raising them than that put forward by those writers. Occasional discoveries such as that of a Chinese jade amulet at Teotihuacan, may be evidence, but the data associated with them are meagre. The amulet in question, for instance, was a surface find, and might well have come over in colonial times, when the trade between Mexico and China was considerable, and Chinese coolies were introduced into Mexico.

As a working hypothesis we might put forward the possibility that whereas the fundamentals that place the Maya civilization above the plane of early Neolithic were autochthonous, at some period towards the close of the old empire Asiatic influence may have made itself felt in Central America. This influence would have led to the introduction of new religious concepts, and possibly a few changes in wearing apparel. The working of metals might also have come into practice as the result of this exotic wave of culture, though actually the evidence at present would seem to favour the highlands of Bolivia as the cradle of American metallurgy. What is required in Central American archaeology at present is more excavation and less execration. It would be well to remember that the archaeologist's weapon is not his tongue but the spade. 'Ten years' intensive excavation in Central America will reveal the truth, the quest of which is at present much hampered by discussions of elephants and macaws.

# Ancient Cultivations at Grassington, Yorkshire

by ELIOT CURWEN

NORTH of the village of Grassington, near Skipton in west Yorkshire, is a large field known as High Close Pasture, largely occupied by old cultivation areas separated from one another by lynchets and low, wide banks. The area so occupied runs 1200 feet in a northerly direction, and is roughly 300 feet wide. Formerly it extended considerably to the west, as remains of apparently the same series of lynchets are to be seen covering Kimbergill Hill and extending to the southern slopes of Lea Green. On High Close Pasture the lynchets and banks are well preserved ; they enclose rectangular fields among which, though varying in size and shape, the form of a short, broad strip seems to predominate. It is extremely difficult to deduce the dimensions of a customary acre from the actual fields on the ground,<sup>1</sup> but in this case the strips average from 360 to 400 feet in length, and round about 75 feet in breadth—dimensions which suggest a  $1 \times 5$  acre with an area of about 0.65 acre.

For the most part the lynchets run along the slopes of the hillside and vary from one foot to four feet six inches in height. They consist of mould with stones, and overlies the subsoil of clayey gravel. The banks on the other hand run up and down hill and also divide the fields where the slope of the hill is not marked. They are low but wide, not often rising more than two feet, but spreading out from nine to fifteen. They appear to consist of stones covered by a small layer of mould, and at first suggest that in origin they are the result of the clearing of the enclosed areas of such loose stones as the early cultivators found. Low banks so formed divide some of the ancient cultivations at Park Brow on the Sussex Downs. A section cut through one of the Grassington banks (at E) revealed, however, that it consisted of a foot of mould largely mixed with moderately big stones lying on an even core of

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<sup>1</sup> If the plan given by Seebohm (*Customary Acres*, p. 123) of the open fields round Carnac in Brittany be studied, it will be found that, if the scale given is correct, there is not one plot which approaches in size the customary Breton *arpent*. The majority contain only about one-third of that area.



## CULTIVATIONS AT GRASSINGTON, YORKSHIRE

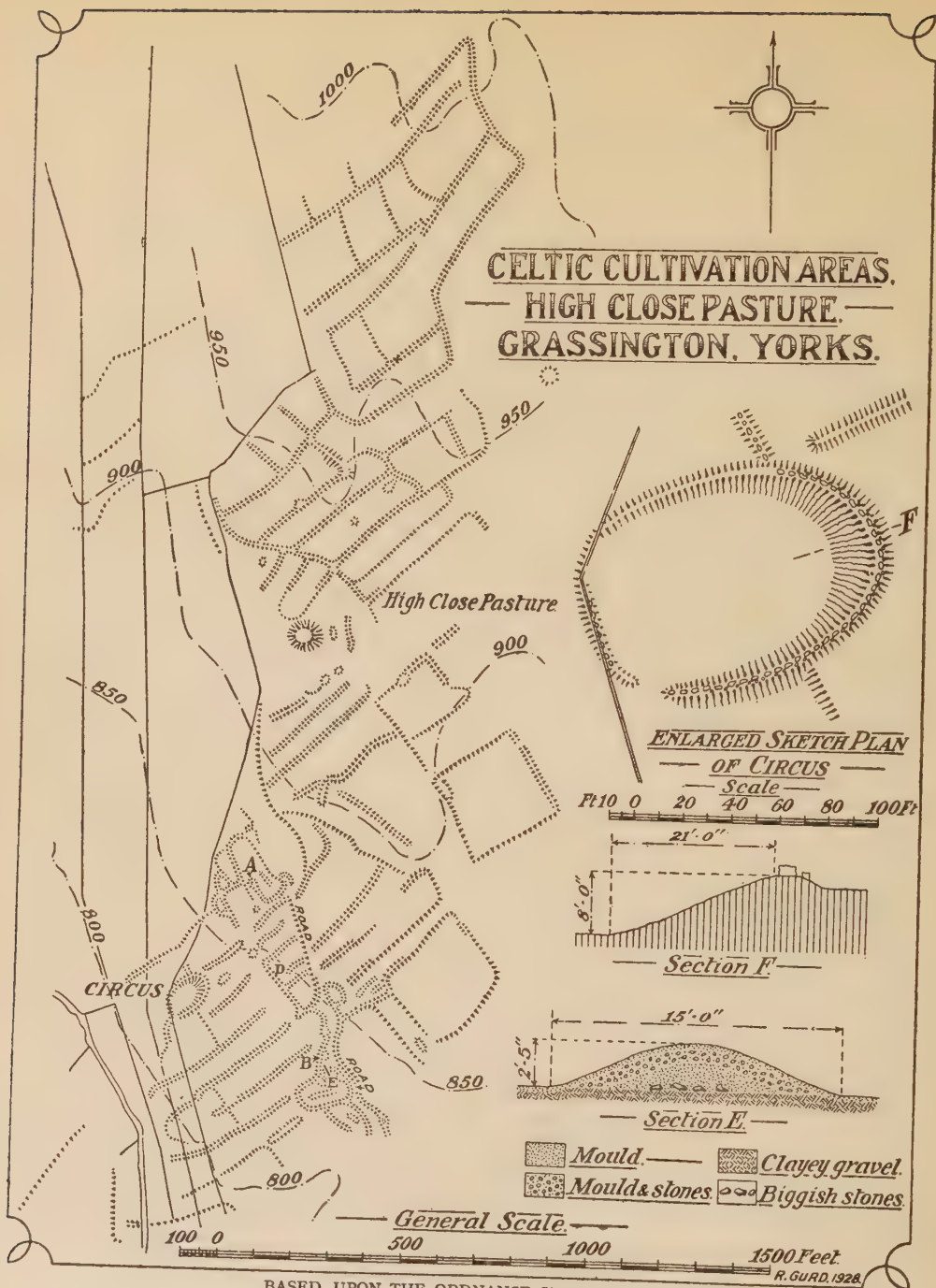
practically pure mould, seventeen inches thick in the centre. In the middle of the bank, lying on the sandy clay subsoil, and therefore under the core of mould, were a few largish stones. So far from the bank having been formed by stones cleared from the fields, it was found that at least four times as much mould as stone was removed in cutting the trench. Nothing was found in the section cut beyond fragments of animal bones lying on the highest part of the mould core. Mr John Crowther tells us he was more fortunate when he opened a neighbouring bank (at D) a few years ago, for in it he found part of the lip of a cream coloured mortarium, which Mr Bushe Fox thinks probably belongs to the first half of the 2nd century, and also fragments of *terra sigillata* and other pottery of Roman date ; unfortunately he did not preserve a note as to the levels in which these shards occurred.

No habitation area has been definitely located and no pottery suggesting the site of a village has been discovered. There are, however, a few small circular areas in connexion with the banks, which resemble hut circles, but are small, being only from nine to twelve feet in internal diameter. Some of these are ranged beside what looks like a contemporary roadway. The floors of two of these (A and B) were cleared out, and in each case revealed sixteen inches of mould mixed with small pieces of limestone and sandstone, under eight or nine inches of turf and mould, and lying on the subsoil of compact gravelly clay. In the mould-and-stone layer were several pieces of both limestone and sandstone which appeared to have been heated, but there were no traces of charcoal or of ash. The same layer yielded several fragments of animal bone, and the teeth of sheep. The only other object found was a piece of flat iron, six inches long, with the remains of a bolt in its side, suggestive of a latch to a door.

The facts that High Close Pasture is under grass, and that no rock crops up in the immediate neighbourhood, offer a probable explanation of the non-discovery of the habitation site of the people who cultivated these fields. A habitation site, which proved on excavation<sup>2</sup> to be of the early Iron Age, lies in a rocky area a mile to the NNW at the north end of Lea Green. It consists of a collection of hut circles and other enclosures surrounded by a low wall. It is possible that High Close Pasture was cultivated by the people who lived in this village, but it is much more probable that the cultivators lived nearer to their fields.

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<sup>2</sup> Vide *First annual report of the Upper Wharfedale Exploration Committee.*



## CULTIVATIONS AT GRASSINGTON, YORKSHIRE

To the south and west of the lynched area lies what is known locally as 'The Druid's Circle', which in all likelihood was the place of communal meeting. It is an oval area 150 feet in length and 75 in breadth, situated on falling ground. The arena, if so it may be called, has been levelled. It lies eight feet below the surrounding bank to the north-east and east, to which it rises with a gradient of eight in twenty-one. The bank to the north is less high, while to south and west the arena, while separated from it by the bank, is above the level of the sloping hillside. The encircling bank is surmounted by a single or double row of stones for three-fourths of its extent. These are apparent to the east and south, but are less so to the west, as along this side a stone wall has been built actually on the bank of the Circus; the stones belonging to this bank are, however, quite clear below the footings of the wall. From north-east round by south to south-west the row of stones is double. Those in the inner row, forty-six in number, stand some eighteen inches high; they are about two feet wide, and are flat-topped, the line is almost continuous, and in parts the stones are placed edge to edge. A second row of smaller stones backs the larger ones. Entrance is obtained to the central level area by a gap to the south-west. No fosse surrounds this earthwork. To the south-east a lynchet four feet high runs off it, while to the north a low stony bank runs off in a NW direction, and one of the larger stony banks approaches to within a few feet from the north-east. The characteristics of this earthwork—a level central arena largely below the level of the surrounding country, encircled by a broad vallum which has an inner slope of easy gradient and no external ditch—bring it into line with those earthworks elsewhere which Mr A. Hadrian Allcroft believes to have been the sites of the communal meetings of early Iron Age and later peoples, while the line of stones surmounting so great a part of the surrounding vallum recalls the larger stone circles. Mr Allcroft has drawn our attention<sup>3</sup> to Homer's description of the reception given by Alcinous to Ulysses at the gate of the city of Scheria, in which are depicted the king and city fathers sitting on the stones of just such a circle, and it may be that we have here in Grassington a work that blends the two types of ancient moots found in our country, namely the larger stone circle to be found in the north and west where stone is plentiful, and the earthen Circus met with in the chalk country and elsewhere where suitable stone is not forthcoming.

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<sup>3</sup> *The Circle and the Cross*, pp. 80 to 102, 225.



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The scanty evidence available suggests a Roman date for the cultivations on High Close Pasture. If this be correct, it is worth while noting the type of acre in prevalent use, and correlating it with what we know of ancient acres. If we take the mean dimensions of the High Close acres as  $385 \times 75$  feet we may compare them with some of the Romano-British cultivations on Buckland Bank (Sussex),<sup>4</sup> where 350, 380 and 400 feet are a frequent length of furrow, but in these cases the width of the plots varies from 120 to 200 feet. Looking elsewhere for analogues we find the Gwentian *erw* of South Wales in the 10th century measured  $324 \times 36$  feet, while in Brittany a common dimension of the modern *arpent* is round about  $300 \times 60$  feet, though the *customary* arpent, according to Seebohm, is as large as  $520 \times 104$  feet. On Bodmin Moor, between Rough Tor and Brown Willy and Garrow Tor, and round about Fernacre Farm, are the remains of old cultivations, to the age of which there is at present no clue. Their dimensions bear a resemblance to those of the Grassington lynchets, the plots commonly being between 300 and 400 feet in length, and 50 to 120 feet in breadth.<sup>5</sup>

NOTE.—Since writing the above we have learnt from Mr Arthur Raistrick, PH.D., M.SC., F.G.S., that he and Miss Chapman, M.SC., have been studying the lynchetted areas at Grassington, and in Wharfedale and elsewhere, for some years. He tells us that they have found quantities of pottery in the cultivation areas at High Close Pasture, though not in the lynchets or banks themselves, and that the range of pottery is from late La Tène well into the Roman period, and includes a large number of pieces of *terra sigillata*. It is to be hoped that they will shortly publish the results of their extended observations not only of the early Iron Age settlements but of the neighbouring long-strip lynchets of Saxon and medieval times.

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<sup>4</sup> *Sussex Arch. Coll.* LXIV, 35, 49; *Antiquity* I, 276, fig. 2.

<sup>5</sup> For plans of the Bodmin Moor examples see *Antiquity* I, 277, figs. 14-16.

## Our Debt to Rome?

by O. G. S. CRAWFORD

WHAT do we inherit from our Roman conquerors? To this question some reply, 'Little or nothing', and some, 'The seeds of culture and religion'. The point has been debated endlessly, because it is an important one, with practical bearings. It is difficult to reach a decision because the decisive period, between 400 and 600 A.D., is one of the darkest in our history. Was there a 'break with Rome' more or less abrupt and complete, or did the traditions of Roman culture survive? By a strange irony, the protagonist of the complete hiatus was the late Professor Haverfield, whose life's work—Roman Britain—still lives in our midst; whereas the writer of today who is most vociferous in support of continuity is Mr Hilaire Belloc; and Mr Belloc is associated in the minds of us all rather with the Dark Ages and their tumultuous wars than with the Pax Romana.

The problem of the hiatus is one that lies on the frontiers between history and archaeology; for, in practice, if not strictly in fact, our recorded history begins with Gildas, Bede and the Anglo-Saxon Chronicle. Our knowledge of Roman Britain—and it is remarkable how much we have learnt even in the last twenty years—is mainly derived from excavation. Ancient writers are for the most part silent; their descriptions are meagre and scrappy; and, in the study of a particular region, archaeological evidence must be used. After the hiatus documentary sources begin to be available; but topography to some extent bridges the gulf.\*

Throughout the Roman occupation the natives of southern Britain lived very much the same life as before. True, there were towns then, where none had been before, and, in prosperous agricultural districts,

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\* Those who desire a more general treatment of the subject should read Mr Randall's fine critique in the *Edinburgh Review*; see Bibliography, 16. Other references to the Bibliography are shown by figures.

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remote from marauding Scots and Irish, the rich natives lived in fine houses. But the bulk of the population continued living on the chalk uplands where the earthen mounds of their villages still remain. Nowhere are these settlements so abundant and well-preserved as in Wessex ; and within that district they are thickly scattered over Cranborne Chase and the Grovely Ridge. These two regions lie south-west and west of Salisbury ; and today they contain the largest continuous woodlands in Wessex. For that reason they are peculiarly instructive to a student of the hiatus. But we must not anticipate. It is necessary, for our purpose, to ascertain not only the regions of densest population during the Romano-British period, but its precise topographical arrangements.

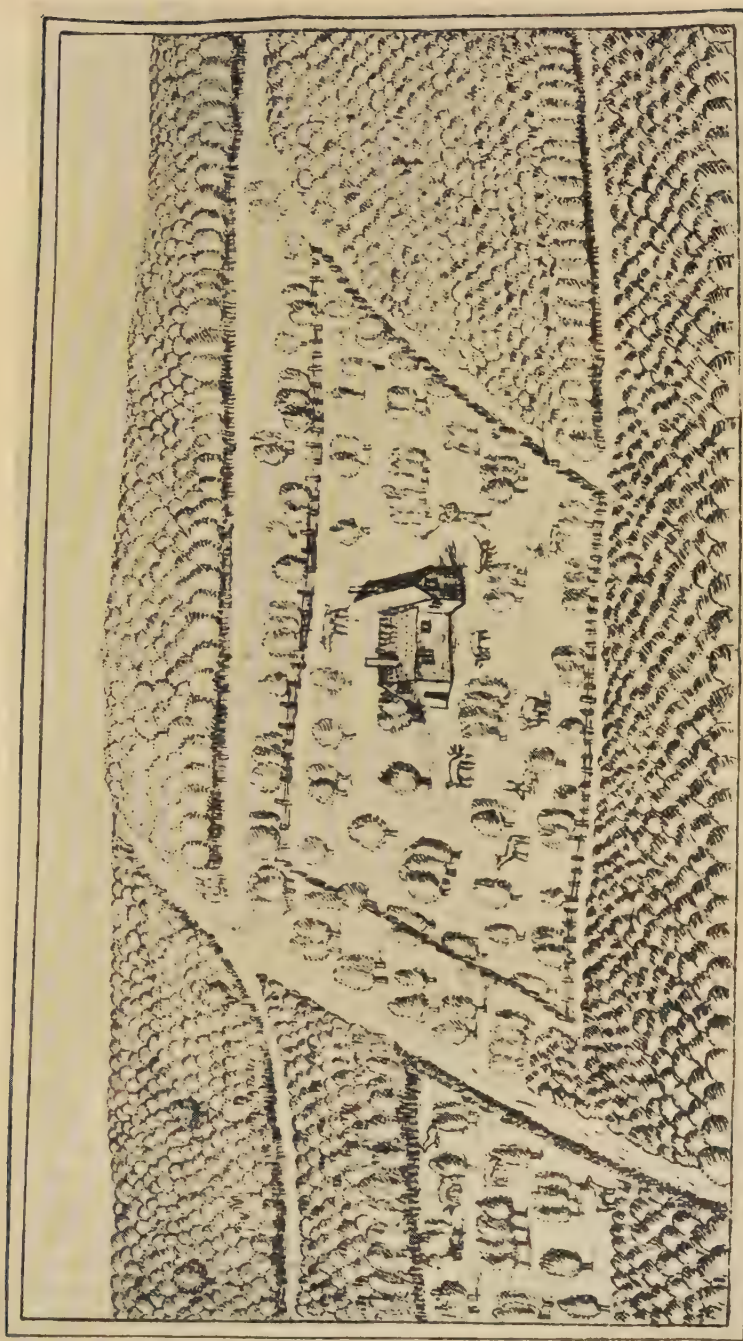
The villages invariably stood on high ground. The two best known are those of Rotherley and Woodcuts, both of which were thoroughly excavated by General Pitt-Rivers.<sup>1</sup> His reconstruction of the life of the villagers from the dry bones of relic-tables is a masterpiece, and his account has often been quoted.\* We are not, however, concerned with the details of daily life. Enough that these upland communities were pastoral and agricultural ; and that the whole of what is now Cranborne Chase is covered with the still-visible boundary-banks of Celtic fields. That is the explanation of those flint banks in woods which have puzzled so many inquirers. The whole area has reverted to its natural vegetation ; and since there is a thick covering of clay-with-flints upon the chalk, both here and at Grovely,† the natural vegetation is a thick scrub of thorn, furze and oak, such as may now be seen on Handley Common. As a rule the villagers selected sites just off the clay, since chalk was obviously preferable for habitation ; and this disposition is very evident on Grovely Ridge. Even so, elaborate drainage ditches were necessary, and there are other good reasons for believing that the rainfall was heavier then (*see* p. 208). There are remains of two large villages near Chettle ; the earthen banks are wonderfully preserved, and the northern village is surrounded by cultivation-patches whose steep lynchets are most impressive. There was a large village on Blandford Race Down, and there is still one on Tarrant Hinton Down, where are two large round enclosures connected by a bank.<sup>4</sup> Perhaps the best known is that on Gussage Hill ; it was planned by

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\* As, for example, in 4, pp. 70-2.

† See bibliography, 2.





GROVELY LODGE FROM A ROLL OF A.D. 1589 BELONGING TO THE EARL OF PEMBROKE



## OUR DEBT TO ROME ?

Colt Hoare,<sup>3</sup> and although partially obliterated by ploughing, its main features are still intact, and a recent air-photograph (taken by the writer) gives a good idea of its plan. There are several villages along the ridge which overlooks the Ebble Valley ; on Bower Chalk Down are the remains, nearly ploughed out, of a large one. There are others which it is unnecessary to mention ; they have been described in Mr Heywood Sumner's survey of the 'Earthworks of Cranborne Chase'.<sup>4</sup> There are probably many which are still unknown, or which may be revealed by air-photography and field-work. The important settlement at 'Bokerly Junction' (where the Salisbury-Blandford road cuts through the dyke) would never have been discovered at all had not the General selected that spot for his excavation of the dyke.<sup>1</sup> Moreover, some of the earlier (pre-Roman) settlements consisted solely of pit-dwellings, without, apparently, the usual banks and drainage ditches ; and unless two such had been found by Dr Clay and their contours revealed by his indefatigable spade, we might have been pardoned for not recognizing the true character of these inconspicuous sites.<sup>5, 6</sup>

Now let us turn to the Grovely Ridge. Today, as for many centuries past, the middle of the ridge is covered by a large wood. There are, indeed, two such woods—one, between Fonthill and Upton Lovell, and the other to the east of it. Both are about the same size and are in many ways much alike ; but the western wood (now called the Great Ridge Wood, formerly Chicklade Wood) seems never to have been part of a royal forest. The eastern was the wooded core of Grovely Forest ; and since its medieval history is better known, I shall use it to illustrate the theme. But it should be borne in mind that what applies to Grovely probably applies with equal force to the Great Ridge Wood, which is full of earthworks.

The whole ridge between the Wylve and the Nadder is thickly covered with prehistoric and Romano-British remains—settlements, fields, boundary-banks and barrows. These remains are found equally in woodland and on downland and cultivation. They are best preserved in the woods and on the downs ; but thanks to that new instrument of research, air-photography, we may hope to recover much that was once thought to have been irretrievably obliterated by the plough. Today, as for many centuries past, Grovely Wood is encircled by a belt of downland, about half a mile wide in places, dividing the woodland from the ploughed fields of the valley settlements. Within the last hundred years, there have been encroachments on the pasture-lands by the plough ; but there are still many large stretches left. It is here that



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the best remaining 'Celtic' settlements are to be found.\* Perhaps the most important is that called on the Ordnance map 'Grovely Earthworks'. These cover a large area on the north side of the wood, on Ebsbury Hill; and since Ebsbury is clearly the older name I shall use it here. The banks and ditches were observed and planned by Sir Richard Colt Hoare; but their true character was revealed by fieldwork with an air-photograph of the site. Studied in this way, the confused tangle easily fell into an orderly arrangement. It was clear that once there had been a large hill-top camp, defended by a triple line of ramparts, following the contour of the hill. In its original perfect condition it must have been most impressive, and may even have been the chief stronghold of the tribe. But the 'Pax Romana' made these fenced cities obsolete; and the inhabitants, or their successors, planted a new, open village on the slopes of the hill outside the stronghold. They threw down long lengths of rampart and ploughed over them; and the traces of their work remain to this day. The visible remains consist of a jumble of these lynchets, fragments of the great stronghold, and the banks of the later Romano-British village.

A somewhat similar sequence of events may have occurred at Hamshill on the opposite (southern) side. Here, however, it is not so certain that the Romano-British settlement was preceded by a native stronghold though it is difficult otherwise to explain the detached and now apparently purposeless 'Hamshill Ditches'. But for our present purpose it is enough that an important village stood here in Romano-British times. The whole area is covered with closely-set hut-platforms, yielding quantities of potsherds, pot-boilers and other relics; and in one place there are the remains of a flint wall.

The earthworks called Hanging Langford Camp and Church End Ring form a single whole and are the remains of a village. Mr R. S. Newall's excavations prove that it belongs to the early Iron Age; and the character of the pottery found suggests that it was inhabited immediately before the Roman Conquest and then abandoned. No

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\* I use the term 'Celtic' to describe both native villages of Romano-British age and those of the pre-Roman Iron Age which immediately preceded it. No other single word, except 'British', is strictly applicable to both; for 'prehistoric' cannot properly be used after the arrival of the Romans; and 'British' is meaningless. For the same reason I have used the word 'Celtic' to describe the fields associated with these villages. A single covering word is essential for convenience of description; but I am fully aware that even this adjective is unsatisfactory and open to criticism, particularly if the agricultural system so described proves to have originated earlier than I thought when I first suggested the name.

## OUR DEBT TO ROME ?

coins and no pottery of Romano-British character were found except four small fragments of ' Samian '. Numerous objects of undoubted Romano-British character have, however, been found near by ; so that we may presume the existence of a settlement here during that period.

There is, however, no necessity to give a detailed catalogue of these Romano-British and earlier sites. They are well attested by finds, by existing remains and by the innumerable Celtic fields still visible everywhere around. Practically the whole area between Grovely Wood and the modern arable on both sides is covered by lynchets ; and they are to be seen also in many of the ploughed fields. So far as finds are concerned, besides the evidence of potsherds, there is the well-known discovery of a hoard of silver coins, made in 1906. The exact site of its discovery, for which I am indebted to Colonel Hawley, was on the line of the Ebsbury ramparts, on the north-western brow of the hill. The hoard itself was dispersed, after the British Museum had taken what they wanted ! The date of its concealment was about A.D. 408.<sup>7</sup> Further, the Roman road from Old Sarum to the Mendips ran along the top of the Ridge, and no doubt contributed towards the economic prosperity of the villages beside it. This road was in existence at least as early as A.D. 60, and perhaps ten years before that ; and besides lead there came along it coal from the Somerset mines, some of which has been found by Colonel Hawley in the Romano-British village at Stockton, and on other contemporary sites.

These upland villages of Cranborne Chase and Grovely were in no way abnormal. Similar topographical conditions obtained in Hampshire ; and although there cultivation has swept away most of the villages, the ancient fields, long preserved by a mantle of woodland, may still be seen. They are particularly abundant in Freefolk Wood and also in the north-western part of the county. On Salisbury Plain, and in parts of Hants and Dorset, the absence of clay-with-flints produced a slightly different result when the land reverted after the abandonment of the settlements. Where there was no clay or loam, the natural carpet of down turf spread again over the surface, gradually ousting the rank weeds that took root first in the loose soil. So, instead of woods we have now open downs : and it is therefore easier to see the whole village system with its fields and boundary ditches, especially from an aeroplane. But in all essentials the disposition of the villages was the same over the whole chalk region. Not a single one of them,

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so far as I am aware, lay down in the bottom of a valley, except possibly on the line of a Roman road.

Now look on the other side of the picture. We have been told by Mr Belloc that (to put it concisely) there was no hiatus.<sup>8, 9</sup> It is the object of this essay to show, by a cold presentation of the facts, that there was ; and that, in this part of Wessex, at any rate, the break between the Roman and Saxon periods was the most complete in our history. True, he admits that ' religion itself ',—by which he probably means the Christian religion—' was almost if not entirely destroyed ' in Eastern Britain, and that ' the whole fabric of Roman civilization appears to have been dissolved there '. But from this collapse he excepts ' such irremovable things as the agricultural system, the elements of municipal life, and the simpler arts '. He concludes that ' it would have been impossible to recreate a sound agriculture, and to refound the arts and learning . . . had it not been for the monastic institution ' : and he believes that ' the Roman estate was, presumably, the direct ancestor of the Manor '.<sup>8</sup>

We need not discuss the survival or extinction of municipal life, for there were no municipalities in Cranborne Chase or Grovely. Nor can we deal with the simpler arts. Both these aspects have been ably treated by others.\* But agriculture is right in the line of fire, and the evidence from our region is very clear and convincing. The adjective ' irremovable ' which Mr Belloc uses, is peculiarly unfortunate ; for, as we shall find, the arable fields of the Saxon settlers were laid out *de novo* ; the position selected round Grovely was the lower slope of the valleys, near the settlements down *in* the valley, and well removed from the upland villages and their fields.

We have no documentary evidence of the foundation of the existing villages of south Wiltshire. We do not know the year or even the century when any single one of them was founded. But it is reasonable to suppose that the majority of the more important parishes were founded and their bounds determined during the seventh and eighth centuries. The first county town of Wiltshire was Wilton, the Wylve-town, which gave its name to the county, Wilton-shire.<sup>15</sup> Like all the county towns of Wessex, it was a market town, with a fair as well ; and it became one doubtless because it was conveniently situated at the meeting-place of the Nadder and Wylve valleys. Here converge the roads connecting the villages strung like beads along

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\* See especially 10-14 in the bibliography.



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them at intervals of a mile or two. They are placed on both sides of the valleys ; and there are consequently two parallel roads along each. These were the *theod-herepaths*, the people's highways, for they connected the villages with each other ; they must have been in constant daily use. They also led ultimately to the market-town (in old English called ' port ' ) ; and one of them at least—that on the south side of the Nadder valley—was called ' port-herepath ' ) for that reason.<sup>17</sup>

The present system of roads and villages has developed out of the Anglo-Saxon system.<sup>19</sup> During fourteen centuries minor additions have been made, but the skeleton is the same. We might compare its growth to that of a man from childhood to old age. While the system is young, new tissue is added and new links form to connect them. With maturity there is a certain amplification, a tendency to incorporate what is structurally unnecessary. As old age comes on, decay sets in and the arteries gradually cease to function. The pulse of the country beats feebly when its life-blood is drained by the towns ; and the time is ripe for its rebirth. Thanks to this wonderful continuity of country life, we are able to reconstruct with surprising completeness the face of the land as it was when the present moribund system was young. Some such reconstruction is required in order to prove the main thesis of this paper ; for when we have made it we find evidence of a *complete reversal*. In Romano-British times and before, the uplands were the regions of densest population ; with the coming of the Saxon settlers there was a complete and abrupt change. No settlements are found, in the two regions we are concerned with, except in the valleys ; the uplands are completely deserted. The best evidence of this is the modern Ordnance map (upon which those reproduced here are based) supplemented by Domesday, old records generally and placenames. I have marked on these maps *all* settlements which are known to be established from of old, and whose foundation dates from before the Norman Conquest ; and, as will be observed, every single one of them is situated in a valley, beside a spring or stream, and generally close to the meads. What a difference between this and the earlier system of upland villages !

We are not entirely dependent upon inference, however, for several of the villages had their bounds written down before the Norman Conquest, and some of these have been preserved.<sup>18</sup> The points in these bounds can still be identified, for the names of some have survived, while others refer to the truly irremovable features of topography such as springs, streams and valleys. We find that the bounds of parishes

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in the Wylve Valley meet those of parishes in the Nadder Valley along the top of Grovely Ridge. Thus, in the tenth century, Baverstock and Langford had two points of contact.\* These two valley-groups met along a common frontier line, formed by a long pre-Saxon boundary-ditch called Grimsditch. This arrangement allowed for arable land nearest to the village, and woodland at the other extreme. In between lay an area of downland suitable for pasturage. Thus the Romano-British conditions were completely reversed. The frontier between the two Saxon groups ran through the middle of the area which before had been most thickly populated.

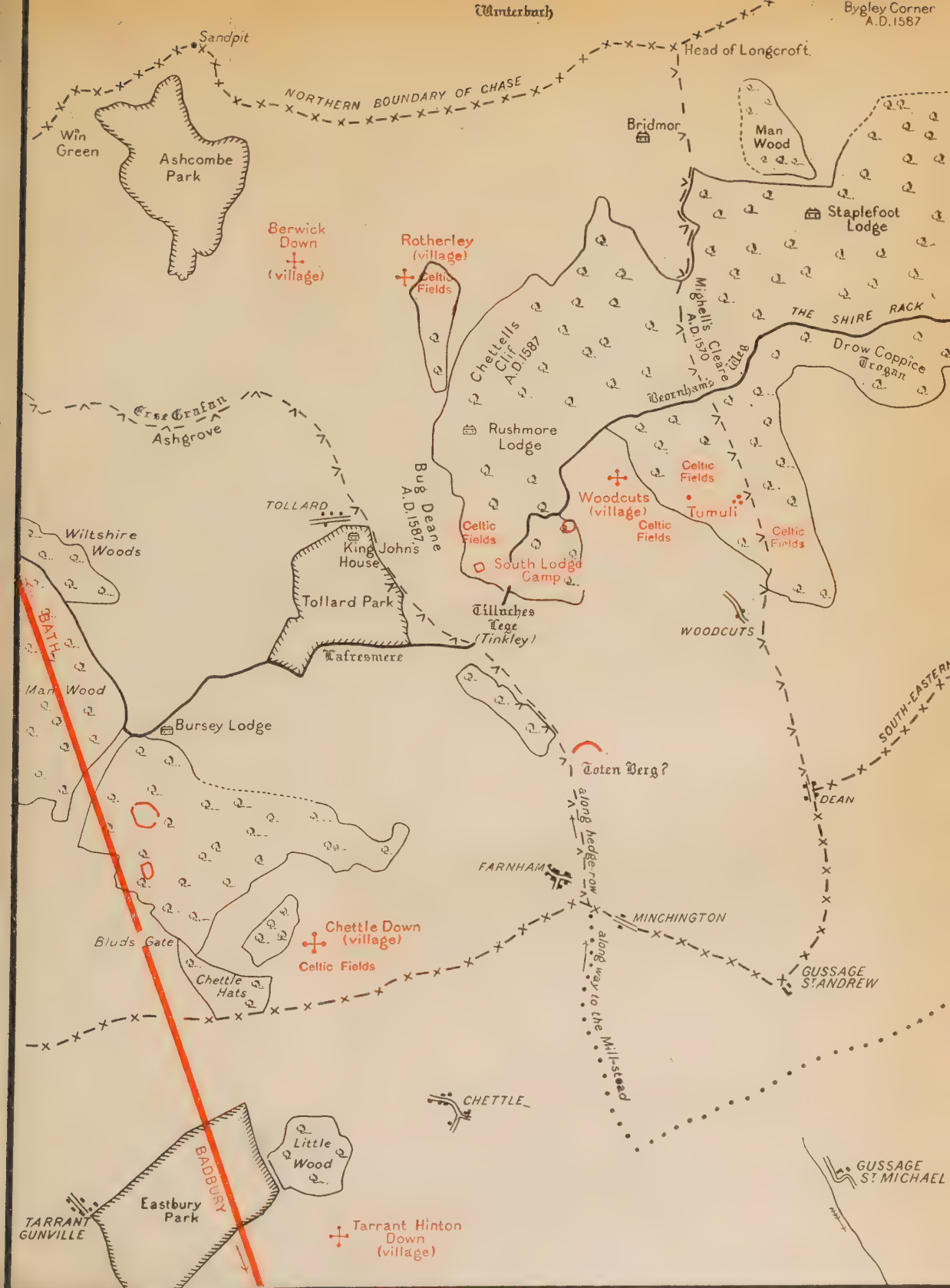
The same change took place in Cranborne Chase. There the frontier between the Wiltshire villages in the Ebbles Valley on the north and the Dorset villages on the south ran right through the middle of the Romano-British region. The county boundary actually passes within a few yards of two Romano-British villages, one on Woodcuts Common and the other (Vindogladia) at Bokerly Junction. The disposition of the Dorset villages is a little different from that of the Wiltshire ones. Instead of being strung along a valley, they are planted at the head of a series of parallel valleys, running down to the river Allen. The arrangement mars the symmetry which elsewhere prevails ; but the difference is one of detail only, and even so none of the modern villages is found on a hill or on the site of an older pre-Saxon one.† Documentary proof is again available, and it reveals the antiquity of the existing régime. The bounds of Handley, as recorded in A.D. 956, coincided throughout with the present boundary of that parish. The north-western part is also the county boundary ; it is called the Shire Rack, and is  $3\frac{1}{2}$  miles long. This stretch formed part of the southern boundary of a manor or group of manors called Chalk (æt Ceolcum), whose bounds along the Shire Rack, recorded in 955, contain three of the same bound-marks as Handley.§ For a distance of nearly ten miles the bounds of Chalk follow the county boundary. At the eastern end the bounds of Chalk march with those of Martin, whose bounds, included within those of Damerham, were recorded in A.D. 940-946. There are again several points in common, proving that these two land-units also had a common frontier in the tenth century.

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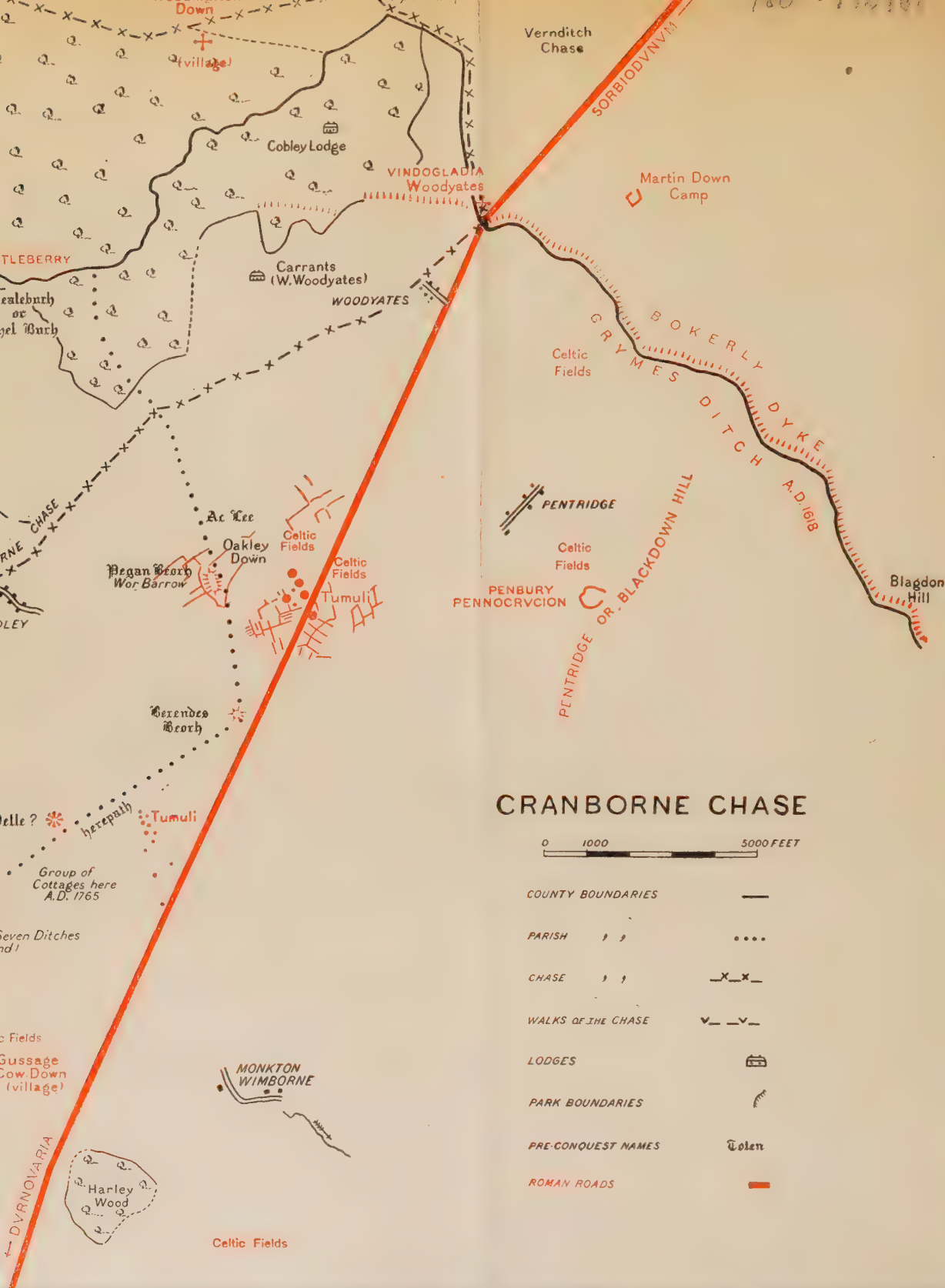
\* That is so still ; but further east a separate extra-parochial area called Grovely Wood has been carved in modern times out of the extremities of four parishes.

† With the exception of Ashmore ; see below, p. 184.

§ They are Tinkley (tilluces leage), Bica's seat (bican setl) and Mistleberry (mealeburg and micelburh).







## OUR DEBT TO ROME ?

I have now set down as plainly as possible the evidence on both sides of the hiatus. Before going further, let me summarize it.

We know the sites where villages stood in both the Romano-British period and the Saxon. We find, on the one hand, villages on the uplands and none in the valleys ; and on the other, villages in the valleys and none on the uplands. We find, further, that the Saxon valley-settlements fall naturally into groups, with a common frontier ; and this common frontier runs right through the middle of two Romano-British settlement-areas, and the fields associated with them. In one case the common frontier is also a county boundary ; and passes through the middle of two Romano-British villages, both of which, as it happens, have been thoroughly and exhaustively excavated. In neither village has a single object of Saxon date been found ; and there is reason to suppose that they were abandoned early in the fifth century and never reoccupied. No post-Roman objects, and no examples of the easily recognized Saxon objects, have ever been found in a Romano-British village of Wessex. That is not due to failure to recognize them as such, for brooches, pottery, spears, metal ornaments and the like are abundantly found in every Pagan Saxon cemetery.<sup>13</sup>

I wish to call particular attention to the behaviour of the Wilts-Dorset county boundary with regard to the two groups, because it provides a clue to the way in which the southern English counties were formed. In Cranborne Chase the county boundary coincides with and follows the frontier between two valley-groups ; and it cannot therefore be older than the valley-villages themselves. A similarly close relationship between county boundaries and settlement-groups can be observed elsewhere ; and I have already touched on the subject.\* It is one that would well repay investigation, but it is too complicated to be dealt with here. I allude to it merely because I want to show that our county system is closely interwoven with the system of valley-settlements and groups, whose foundation *de novo* I attribute to the Saxons.

In stating a case one tends to overstate it ; and one must beware of proving too much. Let me now deal with some of the evidence on the other side. The case for the hiatus is far too strong to be in any danger of being seriously weakened ; the few exceptions, when their character is examined, merely strengthen it.

In maintaining that there was a complete break of continuity I do not wish it to be thought that I support the theory of wholesale massacre

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\* See 20, appendix c.

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or extinction. That there was a good deal of slaughter is certain ; there was also emigration on a large scale, to the West and across the Channel to Brittany.<sup>21</sup> But that some Celts lingered on is proved both by the survival, often to this day, of Celtic place-names and of a pre-Saxon type of humanity. The names which last longest are those of rivers, woods and hills. The name of the Wylze is pre-Saxon ; the early form *Guilou* (*Asser*) comes, according to Stevenson, from a Celtic *Wilavia* ; which is represented today in Wales by two streams *Guilly* and *Guili*. The suffix in *Teffont* and *Fovant* and the prefix in *Fontmell*\* is *funta*, a Celtic loan-word borrowed by the Romano-British people from the Romans, and meaning, of course, a spring (Latin *fons*). One suspects that *Menewood*, the old name for the large wood now called *Fovant* and *Compton Chamberlayne Woods*, may be Celtic ; a road in *Grovely* is called *Menewaie* on the old map of 1576 and in earlier perambulations ; and the name *Meon* occurs elsewhere three times, in surroundings consistent with a pre-Saxon origin. But there is little else Celtic in the place-names of the *Grovely* district.<sup>15</sup> Even the hundreds, which have so often been fathered with a pre-Saxon origin, almost all have Saxon names. (Out of the twenty names of the hundreds of south Wilts, twelve are wholly Saxon, seven have Saxon suffixes and prefixes which may equally well be Saxon too ; and only one, *Warminster*, has a Celtic prefix, and that is the name of the stream, the *Ware*, on which the town of *Warminster* stands).

There are several Celtic names in *Cranborne Chase*. The river-name *Gussage* (*Gussic*) is certainly Celtic or earlier. It occurs also in *Devonshire* as the name—spelt *Gissage* on the Ordnance map—of a tributary of the *Yeo* in *Zeal Monachorum*. The word *Chettle* (OE : *Cheotele*) occurs in more than one part of the Chase. *Pentridge*, just outside the Chase, represents *Pennocrucion* ; it is a high isolated hill with a camp on it, and therefore the word is applicable (from *pen*, hill, or perhaps ‘principal’, and *cruc*, a mound). *Tarrant*, a river-name, is pre-Saxon. Other pre-Saxon names in or near the Chase are *Verne* (ditch), *Cleare* (?), *Man* (combe), *Crichel* (*Kerchel*), *Stirchel*, *Mel(bury)* and *Wim(borne)*. The only known Romano-British name, *Vindogladia* (at *Bokerly Junction*), has vanished and left no trace. In a most interesting paper<sup>33</sup> published after this article was composed, Dr *Zachrisson* comments on this

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\* The order here is Celtic and corresponds with the modern Welsh, in which language it would be *Fynnon Mell*.



## OUR DEBT TO ROME ?

'cluster of Keltic place-names' in Cranborne Chase, noting the abundance too of 'British villages' here, but observing (as we had already observed also) that 'in no instance do their sites coincide with those of the English towns and villages' with the possible exception of Shaftesbury. He had already suggested that 'the Britons [*i.e.* the Celtic-speaking natives] were forced to abandon their hill-forts\* and to adopt the Saxon mode of life'—thus accounting quite satisfactorily for this 'non-survival of habitative names of Celtic origin'. Dr Zachrisson writes as a philologist, and naturally he has no first-hand topographical acquaintance with the remote region of Cranborne Chase. It is therefore all the more pleasant to find that his conclusions are in perfect agreement with our own, which are based on archaeological and topographical facts as well.

These few instances are not enough to prove any considerable survival of a Celtic-speaking population. Some of the words may well be pre-Celtic, and even go back to Neolithic times. When we remember that between us and the Saxons there intervenes the Norman invasion and the whole of the Middle Ages, we may well wonder that so little change of nomenclature has taken place. Had any large proportion of Celtic words survived, they would have occurred far more frequently in contemporary Saxon land-boundaries. As it is, the names there are nearly all Saxon. There, too, the presumed Celtic words denote natural features.

Of anthropological evidence for a survival of the natives it is difficult to speak, for no systematic observations have been made of the modern population. Dr Beddoe, a careful and penetrating observer, believed, however, that the sub-stratum of the population of Wiltshire was non-Teutonic in type.<sup>23</sup> Even if this be so, it may be accounted for in many ways, without in the least upsetting the validity of the arguments set forth above. I have never supported a theory of complete physical annihilation, which is absurd on the face of it! If there were survivors, as there certainly were, they must have become amalgamated, as slaves and serfs, in the Saxon régime. The pre-Saxon element, numerically weak, may have gradually emerged as the generations passed. Such an occurrence is not unlikely, according to the laws of heredity, and has even been suggested quite recently by an eminent anthropologist.

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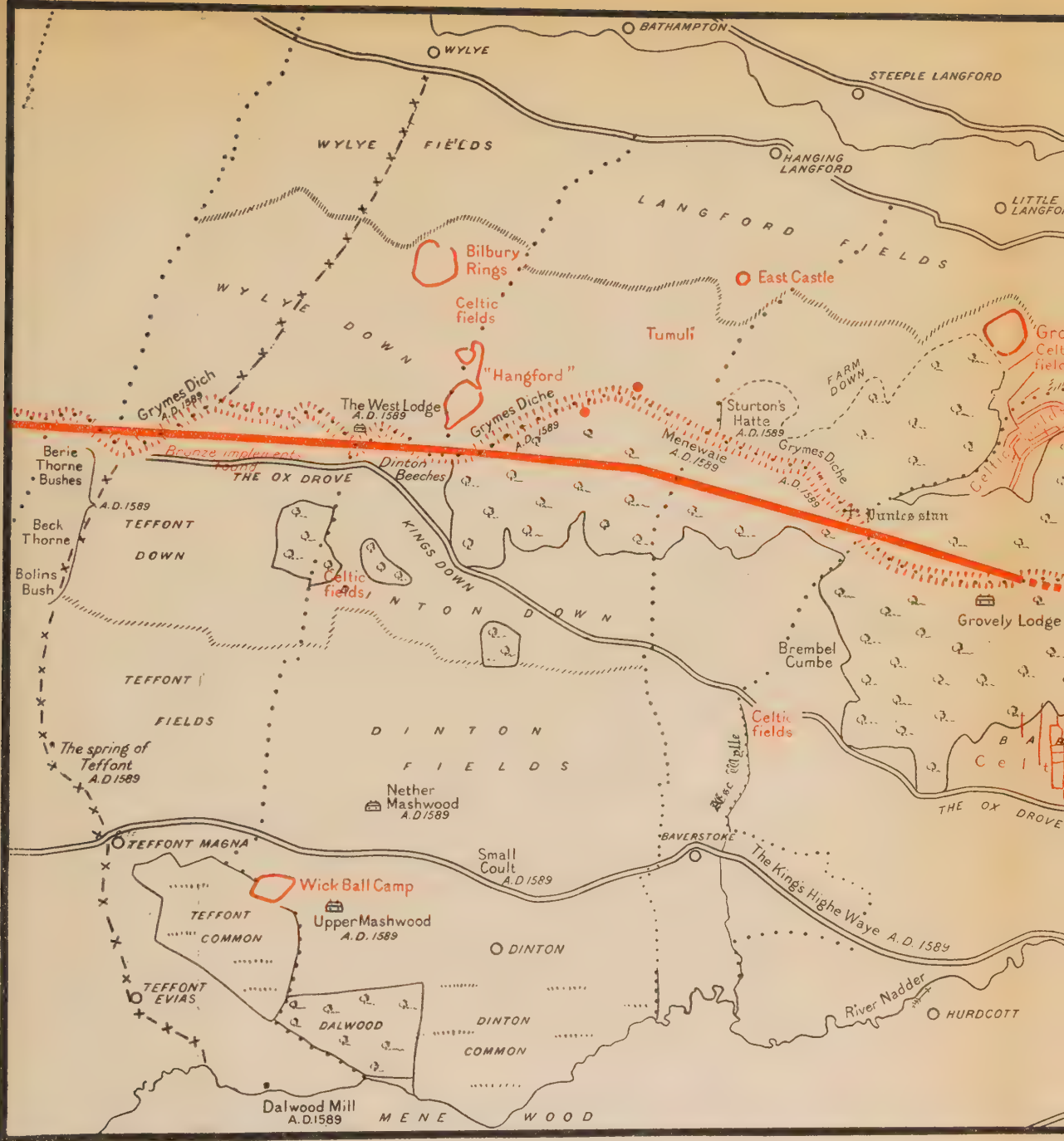
\* Dr Zachrisson's use of this word is unfortunate. The Britons lived for the most part in open villages; the hill-forts belong to a pre-Roman period. But the argument is in no way affected.

## ANTIQUITY

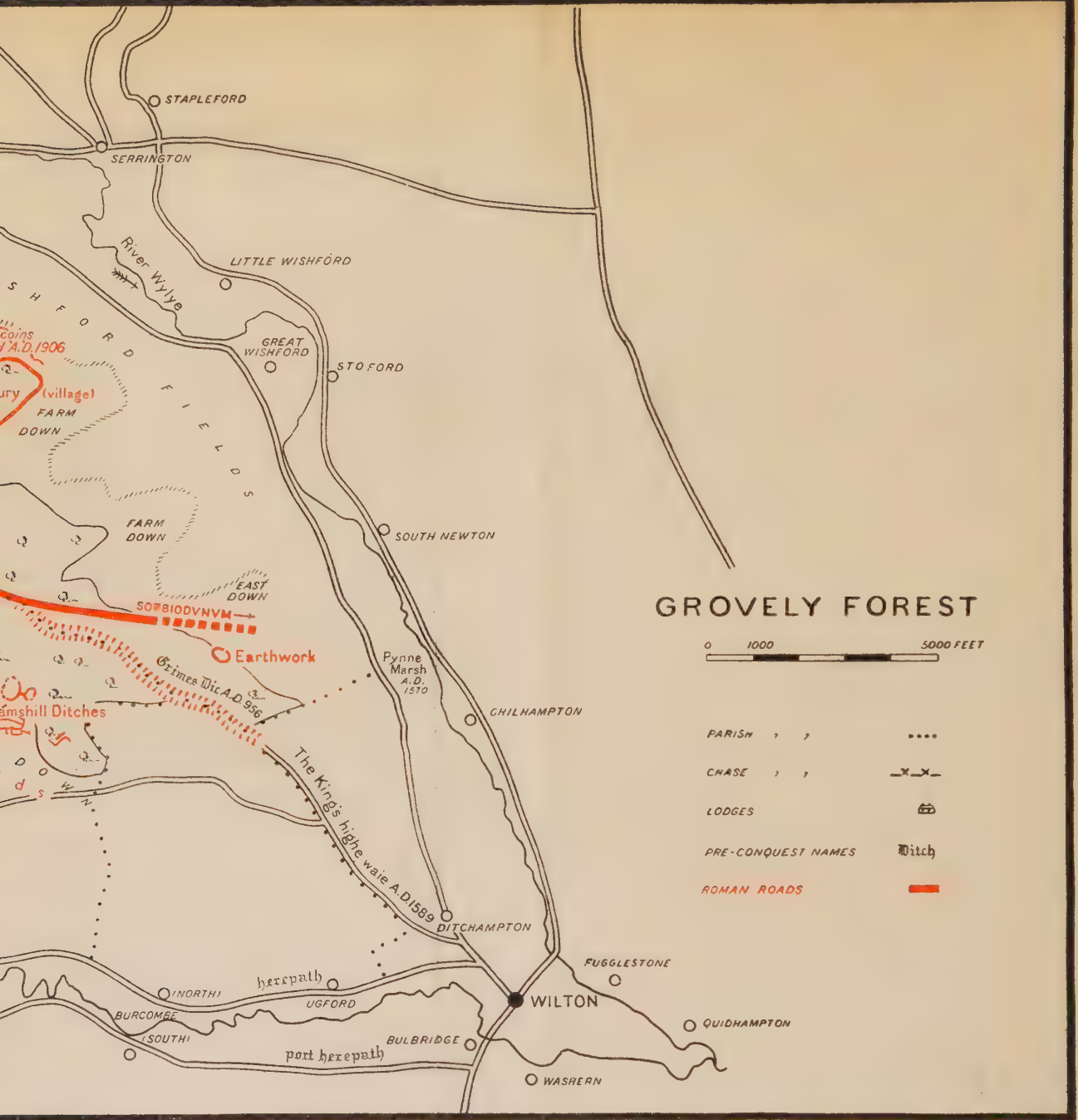
Finally, there still exist a few old hill-top settlements which are undoubtedly exceptions to the rule that the Saxon villages of Wessex were placed in valleys. Though proof is difficult, it is quite possible that some of these are the direct descendants of Romano-British villages occupying the same site. The outstanding example in the region we are considering is that of Shaftesbury. The town is almost unique in that it stands on the summit of a steep-sided hill, an outlying bastion of the chalk hills of the Chase. The name shows that there were defences (*burh*), probably prehistoric; and an alternative name—Alcester, formerly Alyncester—is still applied to the south-western part, and may indicate Romano-British occupation. Not far away is the remote village of Ashmore, 700 feet above the sea. These are the only two hill-top settlements anywhere in these parts; but east of Salisbury there are a few abnormal hamlets round Winterslow. There is an interesting group in north-west Hants—Crux Easton, Ashmansworth, Facombe, Linkenholt and Buttermere (Wilts); and in east Hants and central Berks they are numerous. On the borders of Berks and Wilts are Baydon, Upham and Snap; and on these sites are the evident remains of Romano-British villages, whose character is proved by numerous finds, earthworks and ‘Celtic’ fields all around.

These exceptional villages have certain features in common. Only Crux Easton and Upham have the suffix *-ham* and *-ton*; and the age of all is certainly as great as that of the valley-settlements (Crux Easton was in existence in 796). They are often associated with large ponds, where we may suppose the flocks and herds, if not the people, obtained drinking water. Such a pond is often to be found in or near Romano-British villages, and was, we may be sure, an invariable accompaniment. The feature is often preserved in the name itself. In Saxon this was *mere*; and the suffix appears in Ashmore, Ashmansworth (*Æscmere*, ninth century), and Buttermere.

These ponds, often called dew-ponds, are still common in regions where the chalk is covered with clay, and where surface drainage can be directed into them. The Saxon bounds of the parishes of north-west Hants contain many examples of these ponds (no less than five are mentioned in the bounds of Hurstbourne Tarrant, A.D. 961: see my ‘Andover District’, p. 81). Generally speaking, these exceptional upland villages occur in regions remote from, or unclaimed by, a big valley-group. They are often on watersheds, whether of rivers or settlements. We may suppose that when the valley-people had divided up the land, there remained over in certain districts a residuum of







## OUR DEBT TO ROME ?

unclaimed upland. Such an occurrence was quite certainly exceptional; it was usual for the out-bounds of one valley-group to march with those of the next. But near the headwaters of the valleys were irregular regions not required by any group ; and here survived, or grew up, the rare hill-villages. Had this survival occurred wherever Romano-British villages existed, there would have been now groups on the top of the Grovely Ridge and in Cranborne Chase. But there was no room for them there ; and they were squeezed out. They are found only in the backwoods of early Saxon times.

The waste lands of Cranborne and Grovely developed into forests in medieval times. Cranborne was exceptional for it belonged to a subject ;<sup>24</sup> but Grovely became a normal royal forest. We know nothing of the exact limits of the woods in pre-Norman times ; but it is unlikely that there was any topographical change after 1066, except perhaps a more precise definition of the boundaries between wood and pasture. The change effected by the Norman Conquest was primarily a legal one ; certain harsh restrictions were imposed and officers appointed to enforce them. Forests were areas within which these special forest laws applied. In the early Norman days an attempt was made to turn most of southern central England into ' forest ' land ; but eventually a compromise was arrived at, and by 1300 the ' forest ' areas had been defined by perambulation. We find, on examining these perambulations, that the areas thus enclosed—the real cores of forest land in the modern sense—were for the most part devoid of villages.

The process was simply a part of the gradual transformation that took place all over England, from the democracy of the earliest settlers to the tyranny of feudalism. To begin with, we may believe, every community had unrestricted rights over the whole waste land within its boundaries. Though ' waste ' in the sense that it was not cultivated, such land was of great economic value. It provided material for house-building, thatching, fencing and hurdling (the objects being known each by their names, such as speeke-rods, breeding-rods, fould-shoars, wrethers, etc.) ; snapping-wood for fuel ; pannage for swine and herbage for cattle. These rights were jealously guarded ; and at Grovely they were kept fresh in mind by a pilgrimage to Salisbury Cathedral, whither the people of Great Wishford went every year at Whitsun ' in a dance, making their claim to their custom in the Forest of Grovely in these words—" Grovely ! Grovely !! and All Grovely !!! "'

In the spacious times of great Elizabeth there remained but little of the waste land to be freely enjoyed ; and even those rights that

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rustic tenacity so stoutly maintained were hedged about with exactions extorted by parasitic forest officers. Of the old hunting rights there survived only a claim to 'one fat Buck' annually (divided between two villages) 'to make merry withal amongst the Neighbours'. Even for this the ranger demanded payment of 'one white Loaf and one Gallon of Beer and a Pair of Gloves, or Twelve pence in money for the whole'. If the ranger 'do not bring nor send the fat Buck', the villagers could go and take a whole for *each* village; but the said ranger was not then invited to share it and make merry withal.<sup>26</sup>

That these were but the shadow of ancient rights is a safe inference. Unfortunately, history is almost entirely silent on the status of the forests before the Norman Conquest. From this very silence we may infer that, even if the royal prerogatives existed in some form (which is doubtful), they were at least less damaging to the faithful lieges. That the community exercised a right to use the waste is proved by a charter of 940\* which expressly mentions the village's hey-bote on Grovely. (Hey-bote was the right to take material for fencing). That this right should have to be specifically mentioned is perhaps the best evidence that it was already threatened in the tenth century; that such mentions are rare is proof that the danger of serious encroachment from above was still comparatively remote. Indeed, the abuse of communal rights was a direct and inevitable outcome of the feudal system. The Norman lord of the manor claimed a private right to ownership of all the soil of his manor including the waste, a claim 'which ran counter to all notions of communal property which were bound up with ancient usages as to the waste'.† The outcome was a compromise; customs harmless from the lord's point of view were allowed to continue, but common usages were taxed and the arrogant claim asserted by the extortion of certain privileges. Thus was robbery legalized in the Good Old Times!

We have traced the history of two small parts of England from the days of the Romans down to those of Elizabeth. The treatment has necessarily been summary; but the facts have been examined far more closely than was required for this brief statement of them. We have seen the reversion to nature of an area that once teemed with busy Celtic husbandmen. Next, we have seen that same area supplying the rustic needs of other free communities; and we have seen these

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\* 28, no. 757, Hanging Langford: 'tunes heges bot on Grafan lea'.

† 29, p. 311.



## OUR DEBT TO ROME ?

privileges withdrawn during the Ages of Faith, known to historians as the Dark Ages. One system of agriculture has disappeared and been replaced by another totally different both in kind and in position. The Romano-British villages disappeared and were replaced by communal Saxon villages ; and these in turn were transformed into communities of serfs by the Norman invaders. Thus have irremovable things moved before our eyes. After this, we begin to wonder by which channel it was that the stream of Roman culture reached us. That some elements in our civilization are derived from ancient Rome no one could deny ; but that the stream of continuity was unbroken in this island cannot for a moment be maintained by an informed student of our history.

### BIBLIOGRAPHY

1. GENERAL PITT-RIVERS.—Excavations in Cranborne Chase (privately printed) 1887-1898. 4 vols. (Woodcuts, vol. i, 1887 ; Rotherley, vol. ii, 1888 ; Bokerly Dyke, Vindogladia and Wansdyke, vol. iii, 1892).
2. One-inch to mile Geological Survey maps showing drift ; sheet 298 (Salisbury) ; sheet 314 (Ringwood) ; published by the Ordnance Survey.
3. SIR RICHARD COLT HOARE.—History of Ancient Wilts. 1812-21. 2 vols. (Gusage, vol. ii, part 2, Roman Era, p. 30).
4. HEYWOOD SUMNER.—Earthworks of Cranborne Chase. Chiswick Press, 1913.
5. R. C. C. CLAY.—An Early Iron Age site on Fifield Bavant Down. *Wilts. Arch. Mag.* (June 1924), xlii, 457-96.
6. R. C. C. CLAY.—An inhabited site of La Tène I date on Swallowcliffe Down. *Wilts. Arch. Mag.* (June 1925), xliii, 59-93.
7. G. F. HILL.—Roman Silver Coins from Grovely Wood, Wilts. *Numismatic Chronicle* (1906), ser. 4, vi, 329-47. See also *Wilts. Arch. Mag.* (December 1907), xxxv, 327.
8. HILAIRE BELLOC.—The Historic Thames (1909), pp. 90, 91.
9. HILAIRE BELLOC.—A History of England, vol. I : to 1066. Methuen, 1925.
10. R. G. COLLINGWOOD.—The Roman Evacuation of Britain. *Journal of Roman Studies* (1922), xii, 74-98.
11. F. J. HAVERFIELD and G. MACDONALD.—The Roman Occupation of Britain. Oxford, 1924.
12. F. J. HAVERFIELD.—The Romanization of Roman Britain, 4th edition, revised by George Macdonald. Oxford, 1923.
13. E. THURLOW LEEDS.—The Archaeology of the Anglo-Saxon Settlements. Oxford, 1913.
14. E. THURLOW LEEDS.—The West Saxon Invasion and the Icknield Way. *History* (July 1925), x, 97-109.
15. EINAR EKBLOM.—The Place-Names of Wiltshire, their origin and history. Upsala, 1917.

## ANTIQUITY

16. H. J. RANDALL.—Britain ; Rome ; England. *Edinburgh Review*, October 1925, pp. 350-63.
17. O. G. S. CRAWFORD.—Chapter VIII, on 'Place-names and Archaeology', in the introductory volume of the English Place-Name Society. Cambridge, 1924.
18. G. B. GRUNDY.—Saxon Land-Charters of Wiltshire, 1st series. *Arch. Journ.*, lxxvi, 143-301 ; 2nd series, lxxvii, 8-126.
19. G. B. GRUNDY.—The Ancient Highways and Tracks of Wiltshire, Berkshire and Hampshire, and the Saxon Battlefields of Wiltshire. *Arch. Journ.* lxxv, 69-194.
20. O. G. S. CRAWFORD.—The Andover District. Oxford, 1922.
21. C. W. C. OMAN.—England before the Norman Conquest. Methuen, 1910.
22. C. R. STRATON.—Survey of the Lands of William, First Earl of Pembroke. Rox-burgh Club, 1909, 2 vols.
23. J. BEDDOE.—A Contribution to the Anthropology of Wiltshire. *Wilts. Arch. Mag.* (June 1905) xxxiv, 15-41.
24. T. W. WAKE SMART.—A Chronicle of Cranborne, 1841. (Contains a reproduction of a map of the Chase).
25. GENERAL PITT-RIVERS.—King John's House, Tollard Royal, Wilts. ; privately printed, 1890. (Contains a reproduction of another map by Thomas Aldwell and others, of 1618).
26. G. J. TURNER.—Select Pleas of the Forest. Selden Society, vol. xiii. Quaritch, 1901.
26. REV. CHRISTOPHER WORDSWORTH.—Customs of Wishford and Barford in Grovelly Forest. *Wilts. Arch. Mag.* (December 1907) xxxv, 283-316.
27. SIR RICHARD COLT HOARE ; and others.—Registrum Wiltunense. London, 1827.
28. W. DE GRAY BIRCH.—Cartularium Saxonicum. 1885-1893. 3 vols. (The most complete collection of Anglo-Saxon charters up to A.D. 975).
29. SIR PAUL VINOGRADOFF.—The growth of the Manor. Swan Sonnenschein, 1905.
30. H. M. CHADWICK.—The Origin of the English Nation. Cambridge Univ. Press, 1907 (reprinted without alteration, 1924).
31. O. G. S. CRAWFORD.—Air Survey and Archaeology. H.M. Stationery Office and the Ordnance Survey, 1924. [Out of print ; new edition, revised and slightly enlarged, in preparation].
32. J. BEDDOE.—On the Human Remains discovered by General Pitt-Rivers. *Journal of the Anthropological Institute*, 1889.
33. R. E. ZACHRISSON.—Romans, Kelts and Saxons in Ancient Britain ; an investigation into the two dark centuries (400-600) of English History. Upsala (Almqvist and Wiksells Boktryckeri), 1927.

# The Swedish Excavations in Cyprus

by EINAR GJERSTAD

THE Swedish archaeological expedition in Cyprus worked last year at Lapithos on the north and at Karavostassi, the ancient Soli, on the north-west.

At Lapithos 23 tombs from the early and middle Copper Age and 20 tombs from the early Iron Age were opened and examined. The former cover a period from the end of early Cypriote I to the beginning of middle Cypriote II. The main part of the finds consists of a very representative series of pottery : red polished I-IV ware, black polished ware, black slip I-II ware, white painted I-IV ware. The later tombs have yielded a rich collection of tools and weapons, bracelets and rings of copper, finger-rings of silver and gold, 8 necklaces of paste beads, idols of terra cotta and one marble idol, etc. The gold rings (early Cypriote III) represent the first gold found in Cyprus of the early Copper Age. One necklace (early Cypriote III), consists of 156 globular beads of various sizes arranged in 8 rhythmic series, with one large bead in the middle of each series. Another necklace (middle Cypriote I) consists of 64 large globular beads and more than 500 small cylindrical beads inserted between the large ones. A third is of round, fluted and double-conical beads in symmetrical arrangement. The idols are of the plank-shaped type. One represents a mother holding a baby in her arms, another a mother and a baby in a bed, and a third a man and a woman in a bed.

The anthropological material is of great importance : the human skulls found in the tombs will help to solve one of the main questions of Cypriote prehistory—the origin of the Cypriote metal culture and of the people who developed it.

The excavation of the early Iron Age tombs has brought us near the solution of another main problem of Cypriote prehistory—the Greek colonization of the island. It is well-known that from the late Cypriote II period (contemporary with late Helladic III) Cyprus was in close contact with the Aegean culture and many Mycenaean vases (late Helladic III) have been found in late Cypriote II tombs. But the great question is whether the late Helladic III pottery gives evidence of commercial connexions between the Aegean and Cyprus or of a Mycenaean colonization of Cyprus. As the shapes and the decoration



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of the late Helladic III pottery found in Cyprus are identical with those of the late Helladic III pottery in Greece and as, moreover, there are no signs of mutual influence of the native Cypriote (base-ring and white slip wares, etc.) and the foreign late Helladic III pottery I consider the latter to have been imported altogether. First, in the late Cypriote III period there is an assimilation of the sub-Mycenaean and the native Cypriote pottery ; this gives evidence of a Greek colonization of the island and so I consider this to have taken place in the late Cypriote III period (1200-1000 B.C.). The early Iron Age tombs at Lapithos seem to verify this conclusion. They are, in fact, the tombs of the first Greek colonists in Cyprus. Already the shape of the tombs gives evidence that Mycenaean Greeks have been buried in them ; they are identical in type with the Mycenaean chamber-tombs though of a smaller size. We know that the Mycenaean culture in Greece disappears at the end of the Bronze Age (c. 1100 B.C.) and at the same time the Mycenaean tomb-type disappears. How is it then possible that this tomb-type occurs in Cyprus in the early Iron Age, c. 200 years later ? This can only be explained by the supposition that the Greeks colonized Cyprus before the end of the Mycenaean period, brought their own tomb-type with them to the island and continued to cut their tombs according to the traditional scheme, even after the Mycenaean culture had disappeared in Greece. Moreover the finds themselves give evidence of the Mycenaean tradition, especially the pottery : many of the shapes and ornaments remind one of the Mycenaean art in its latest stage. Some of the tombs are very rich. In one of these a magnificently decorated lady was buried. Her head-dress was covered gold : six rondels, three Mycenaean rosettes and five rectangular plaques with impressed ornaments, representing a naked goddess with up-lifted hands and a head of the same goddess, and her dress was fastened by a pin with a head of a large rock-crystal. Another lady in another tomb had a similar head-dress decorated by four plaques with stamped ornaments representing a naked goddess on a rosette ; she had double ear-rings ; the waistcoat was fastened by two pins, one with a golden head in shape of a pomegranate and the other with an amber head ; both hands had finger-rings and the left hand held an ivory comb with incised ornaments. As no tombs of a pure Mycenaean type have been found in Cyprus in the late Cypriote II period or before that, these Lapithos tombs seem to be archaeological proof that the Greeks colonized Cyprus in the late Cypriote III period, just at the end of the Bronze Age. The excavation of the late Bronze Age necropolis of Lapithos will give the final answer.

## THE SWEDISH EXCAVATIONS IN CYPRUS

At Soli, the theatre has been excavated. The stage-building consists of a long *skene* and a narrow *proskenion*. The *skene* was built in two stories but only the lower part of the walls is now preserved. These were decorated with marble slabs and the front and the side-walls were surrounded by columns. In the Byzantine period the theatre was deprived of its marble decoration, and only fragments of the columns and the marble slabs have been found. The orchestra as well as the cavea is semi-circular. The cavea consists of three tiers, of which the first and second are cut out of the rock, while the third has been built up on a filling of earth and stones between two semi-circular enclosing walls. This third tier together with the upper part of the walls has been destroyed. The theatre has two entrances, one western and one eastern, both opening to the diazoma. The western entrance is cut out of the rock as a passage, the sides of which are lined with walls of well-cut blocks. At the top these walls ended in a vault. These vaults have now been demolished, but we can reconstruct them from fragments of a marble cornice, which once decorated the border of the vaults. The eastern entrance is in principle built in the same way, but as the rock slopes steeply there, a complex of supporting walls had to be built in order to support the pressure of the vaults and the upper part of the theatre.

The theatre was built in the Hellenistic period but it has been used and rebuilt in the late Roman period. As an example of the later Greek culture in Cyprus the theatre of Soli is of great importance to the history of culture. But perhaps still more interesting than the theatre itself is the discovery of a Greek temple within the theatre walls: in the filling between the walls encircling the third tier architectural fragments were found which proved to belong to a Greek Doric temple of the archaic period. Blocks of the temple cella and the architrave built in the masonry of the eastern entrance of the theatre were found. Archaic terracotta statuettes were also found in the débris. It is evident that when the theatre was built a Doric, archaic temple was demolished to serve as building-stones and at the same time the votive equipment of the temple—the terracotta statuettes—was used as a filling material. In a trial trench about 100 mm. west of the theatre we came across foundations of a Greek, archaic temple, which still remains to be excavated. Do these architectural fragments found in the theatre belong to this temple? Only through further excavations and careful measurings can this question be answered. But so far our hope of finding Greek cultural monuments in Soli has been realized.

# The Recent Finds at Beisan

by ALAN ROWE

Field Director, Palestine Expedition,  
Museum of the University of Pennsylvania

EVER since the year 1921 the Palestine Expedition of the Museum of the University of Pennsylvania has been engaged in the excavation of the ancient city of Beth-Shan, at present called Beisan, which lies in North Palestine at the eastern end of the Valley of Jezreel. The site consists of an enormous mound, named Tell el-Hosn, or 'Mound of the Fortress', and an extensive cemetery—one of the largest in Palestine, which has been proved to contain burials of all periods, from the early Bronze Age to the Byzantine era. In the tell itself have so far been found the remains of nine superimposed citadels or city-levels:—I, Arabic (mosque), Crusader, etc., 636 A.D.—19th century A.D.; II, Byzantine (circular church), 330 A.D.—636 A.D.; III, Hellenistic (temple), Jewish and Roman, 301 B.C.—329 A.D.; IV, Late Ramesside, Philistine, Israelite, Assyrian, Scythian, New Babylonian, Old Persian, etc., 1224 B.C.—302 B.C.; V, Rameses II (two Canaanite temples,—northern one, 'House of Ashtaroah' of I Samuel, xxxi, 10, and southern one 'Temple of Dagon' of I Chronicles, x, 10), 1292 B.C.—1225 B.C.; VI, Seti I,—two levels, late Seti, early Seti (Canaanite temple), 1313 B.C.—1292 B.C.; VII, Amenophis III, etc. (Canaanite Temple), 1411 B.C.—1314 B.C.; VIII, pre-Amenophis III, 1446 B.C.—1412 B.C.; and IX, Thothmes III (two Canaanite temples,—southern one for 'Mekal, the god of Beth-Shan', and northern one for his female counterpart), 1501 B.C.—1447 B.C. It will thus be seen that there have been discovered altogether nine sacred buildings on the tell, that is to say, an Arabic mosque, a Byzantine circular church, a Hellenistic temple, and six Canaanite temples. All the Canaanite temples have been unearthed since the year 1925, the two temples of Thothmes III being excavated in the 1927 season.

SOUTHERN TEMPLE OF THOTHMES III. The southern temple of Thothmes III is about 138 ft. in length from south to north. It is made



PLATE I



GENERAL VIEW OF NORTHERN AND SOUTHERN TEMPLES OF THOTHMES III, BEISAN, 1501-1417 B.C.



## THE RECENT FINDS AT BEISAN

of brick with stone foundations, and consists of the following main divisions :—

(1) Inner sanctuary. This is a roughly rectangular room with a brick altar for cult objects and a stone altar for meat offerings. Upon the former altar, which incidentally supports a stone basin for blood libations, were set a hollow cylindrical stand for holding the flowers and fruits placed in it during the festivals associated with the renewal of vegetation ; a beautifully decorated pottery chalice of unusual design ; a gold covered figurine of a god ; a pottery figurine of the goddess Ashtoreth ; a magnificent amethyst scarab of Sesostri<sup>s</sup> I, XII<sup>th</sup> dynasty, 1970–1935 B.C. ; a Hittite bronze dagger with curved blade ; an ivory cosmetic pot on a base ; and many other important objects. Near the stone altar we discovered the shoulder-blade of a bull which formed part of an actual sacrifice made in the sanctuary. Just to the east of the two altars was lying a rectangular panelled altar-stand of Cretan type, with a cross in high relief, emblematic of ‘ divinity ’, on its top.

(2) Sacrificial-altar room. This is just to the south of the sanctuary, and has a great altar of sacrifice, with two steps leading up to it from the entrance passage of the sanctuary. In the top of the altar is the channel for conveying the blood to an outlet at the east of the altar, and also the socket for the peg to which the animal was tethered. Against the altar we found the two horns of a bull, while near its west side (but in the courtyard, which is west of the inner sanctuary) was lying a collar-bone of a bull and a sacrificial dagger. The bull, as shown by all the skeletal remains in the temple, which must surely have belonged to one and the same animal, was about three years old (cf. I Samuel, i, 24, 25, R.V., margin).

(3) Courtyard. This contains three rectangular table-like structures of brick, on two of which were doubtless cut up the carcase of the sacrificed bull. The other table, being much smaller, was perhaps used for holding the implements with which the flesh was divided (cf. Ezekiel, xl, 42). In one part of the courtyard, and not far from the above mentioned sacrificial altar, were discovered the socket of the pole upon which the carcase had been dressed, and also a heavy bronze pendant which was doubtless hung from the neck of the bull before it was sacrificed. On one side of the pendant is represented a lion jumping on a bull.

(4) Room north of inner sanctuary. The purpose of this room is not clear. Upon its walls, and also upon those of other walls in the



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temple, are low pedestals of brick which were doubtless supports for the posts holding the boards with which the temple seems to have been screened.

(5) Southern corridor and mazzebah. On the south side of the temple is a long corridor leading eastwards to a small room containing a mazzebah or sacred column emblematic of the god of the temple. This mazzebah is cone-shaped in appearance and is of basalt. Before it is a libation cup of the same material, which was for the purpose of catching the libations of blood poured over the column. The floor around the mazzebah and the cup are of brick. Near the mazzebah was lying an Egyptian stele which is of the utmost importance, as it provides us with the actual name of the local god who was probably worshipped in the temple itself—'Mekal (or, Mekar), the god of Beth-Shan'. This is the first time that we have met with the name of this deity.

NORTHERN TEMPLE OF THOTHMES III. This building is roughly rectangular in shape and has a small dividing wall running across it from south to north. On its eastern wall are some brick pedestals, while in its northern side is a flight of five steps leading down to a lower level. The building is not yet fully cleared. Nothing of importance has yet been discovered in this temple, but from a room to the south of it came a bowl with an undulating serpent represented on it in high relief. This object is of great interest as it indicates that serpent-worship, so common in Beisan during the reigns of the later Egyptian kings who held the fort, was already practised there in the time of Thothmes III. Beisan was certainly a centre of a great serpent-cult in Palestine, and it is just possible that its ancient name Beth-Shan, or 'House of Shan', was associated in some way with the old Mesopotamian serpent-deity Shahan, Sakhan or Shakhan.

Among other discoveries made during the 1927 season, may be mentioned that in the level of Amenophis III we came across a Babylonian cylinder seal of the 19th–18th century B.C., inscribed in cuneiform with the following words; 'Manum, the diviner, and servant of the god Enki (Ea)'. The figures of the god and the diviner are represented on the seal, which is extremely well cut. Other finds from the same level comprise:—(1) A Hittite cylinder seal bearing the figures of two deities, an elephant, an ass, and a vulture, as well as the Hittite hieroglyphs reading 'god' and 'fort' respectively; (2) models of serpents on stands; (3) a pottery jar surmounted by the head of the dwarf-god Bes or Ptah-Seker; and (4) three cylindrical cult objects—one with the

PLATE II



MAZZEBAH, OR SACRED COLUMN OF BASALT, FOUND IN SOUTHERN TEMPLE OF THOTHMES III, BEISAN

*facing p. 194*

PLATE III



STELE OF MEKAL FOUND IN THE SOUTHERN TEMPLE OF THOTHMES III, BEISAN



## THE RECENT FINDS AT BEISAN

head of an elephant, one with the head of a plumed Ashtoreth in high relief, and one with the head of a bull.

### NOTES ON ILLUSTRATIONS

Plate I (facing p. 192). General view, looking south-west, of the northern and southern temples of Thothmes III found at Beisan, 1927. The northern temple is not yet fully cleared.

- 1 Inner sanctuary with brick altar (A) and stone altar (B), the former for cult-objects and the latter for meat offerings.
- 2 Room with altar of sacrifice.
- 3 Corridor leading eastwards to mazzebah or sacred column, emblematic of the deity.
- 4 Courtyard with three brick tables or pedestals for cutting up the animal sacrifices, etc. A socket (C) for the pole on which the carcase was dressed, is in the south-east corner. (The pole is modern).
- 5 Room north of inner sanctuary. In its west wall is a pole socket, the use of which is not clear. (The pole is modern).
- 6 Corridor leading to northern temple.
- 7 Room, partly excavated, to west of corridor.

Plate II (facing p. 194). Mazzebah or sacred column of basalt, found in the south corridor of the southern temple of Thothmes III at Beisan, 1927. In front of the mazzebah is a stone cup (also of basalt) for catching the blood libations which were poured over the column. Both cup and column are on a brick floor. Looking north.

Plate III (facing p. 195). Stele of 'Mekal, the god of Beth-shan', found in the southern temple of Thothmes III at Beisan, 1927; made for the builder AMEN-EM-APT by his son PA-RA-EM-HEB.

Upper register :—To the left is Mekal seated on a throne holding the WAS-sceptre of 'happiness', and the ANKH-sign of 'life'. He is bearded; on his head is a conical crown with two horns and two streamers attached to it. In front of him stand AMEN-EM-APT and PA-RA-EM-HEB, each offering him a lotus.

Lower register :—To the left are four lines of hieroglyphics (the last one of which is missing) which contain a prayer to Mekal for life, health, etc., on behalf of AMEN-EM-APT. To the right is an altar stand, and also the figures of the father and son mentioned above (both broken away).

# The Alexandrian Library

by GEORGE H. BUSHNELL

THE main centre of literary activity was transferred from Athens to Alexandria about 250 B.C., and this city, which had been founded by Alexander in 332 B.C., under Ptolemy Philadelphus became a great book mart.

As far as the history of libraries is concerned, the Alexandrian library was comparatively late. The East had known libraries thousands of years earlier. The Greeks themselves had founded their first state library about one hundred years earlier; this was established by the Greek government at Heracleia, on the southern shore of the Black Sea, some time before 350 B.C., in the days when the great Alexander was a little boy.

The rise of literature at Alexandria was unlike that of Athens and Rome. In these two cities it was of slow growth and developed gradually. Ptolemy the second was both ambitious and energetic and he attracted a vast number of writers and students to Alexandria. These writers and copyists produced standard editions of the great literary works on which almost all the other libraries came to depend. The 'Alexandrian editions' were circulated throughout the Hellenistic world.

From these editions are descended most of the manuscripts which are now preserved in the famous libraries of our day and which have served as 'originals' for our printed editions of Homer, Xenophon and others.

It is related that Ptolemy refused to provide the Athenians with food during a famine except on the condition that they would let him have certain authenticated copies of the tragedies of Aeschylus, Sophocles and Euripides. When he did receive them, however, he was sufficiently generous, since he paid for the works with the sum of fifteen talents in silver in addition to sending the Athenians the stipulated amount of corn.

The Alexandrian museum was an institution for the advancement of learning, and became a kind of 'Round Table' for erudite men. Its buildings were situated in the royal quarter of the city, adjoining

## THE ALEXANDRIAN LIBRARY

the palace, and included cloisters, gardens, and a common hall for meals. Eminent literary and scientific men were invited to become members of the society, and annual stipends were allowed them by the king. Here they were to devote their lives to the Muses, and, at first at least, there was probably no provision made for teaching. The museum resembled the philosophical schools at Athens in some respects, noticeably in being a 'Temple of the Muses', a *Μουσείον*, headed by a president, or 'priest of the Museum', who, at Alexandria, was appointed by the government. In close conjunction with the museum was the Great Library. There was also a smaller library, which contained 42,800 volumes. In the course of time a Jewish college, a Christian college and other foundations were established at Alexandria.

Alexandria was in Macedonian times the great centre—or rather one of the two great centres—of scientific research. Classical learning, mathematics, anatomy, astronomy, mechanics, medicine, natural history, and whatever else of science there was, found a home in this city.

From the palace at Alexandria a short walk across the park led to the library, which contained about 500,000 rolls, or 'books'. Josephus in his 'Antiquities' (book XII, chapter 2), relates an anecdote, which may or may not be true, concerning the acquisition of books for the library. To quote from Whiston's translation :

'The occasion was this:—Demetrius Phalerius, who was library-keeper to the king, was now endeavouring, if it were possible, to gather together all the books that were in the habitable earth, [see map of the world according to Eratosthenes, *c.* 200 B.C.] and buying whatsoever was anywhere valuable, or agreeable to the king's inclination (who was very earnestly set upon collecting of books) ; to which inclination of his, Demetrius was zealously subservient. And when once Ptolemy asked him how many ten thousands of books he had collected, he replied, that he had already about twenty times ten thousand ; but that, in a little time, he should have fifty times ten thousand. But he said, he had been informed that there were many books of laws among the Jews worthy of inquiring after, and worthy of the king's library, but which, being written in characters and in a dialect of their own, will cause no small pains in getting them translated into the Greek tongue : that the character in which they are written seems to be like to that which is the proper character of the Syrians, and that its sound, when pronounced, is like to theirs also ; and that this sound appears to be peculiar to themselves. Wherefore he said, that nothing hindered



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why they might not get those books to be translated also ; for while nothing is wanting that is necessary for that purpose, we may have their books also in this library. So the king thought that Demetrius was very zealous to procure him abundance of books, and that he suggested what was exceeding proper for him to do ; and therefore he wrote to the Jewish high-priest that he should act accordingly . . . [The king] gave order to Demetrius to give him in writing his sentiments concerning the transcribing of the Jewish books ; for no part of the administration is done rashly by these kings, but all things are managed with great circumspection. On which account I have subjoined a copy of these epistles, and set down the multitude of the vessels sent as gifts (to Jerusalem), and the construction of every one, that the exactness of the artificers' workmanship, as it appeared to those that saw them, and which workmen made every vessel, may be made manifest, and this on account of the excellency of the vessels themselves. Now the copy of the epistle was to this purpose :—" Demetrius to the great king. When thou, O king, gavest me a charge concerning the collection of books that were wanting to fill your library, and concerning the care that ought to be taken about such as are imperfect, I have used the utmost diligence about those matters. And I let you know, that we want the books of the Jewish legislation, with some others ; for they are written in the Hebrew characters, and being in the language of that nation, are to us unknown. It hath also happened to them, that they have been transcribed more carelessly than they should have been, because they have not had hitherto royal care taken about them. Now it is necessary that thou shouldst have accurate copies of them. And indeed this legislation is full of hidden wisdom, and entirely blameless, as being the legislation of God : for which cause it is, as Hecateus of Abdera says, that the poets and historians make no mention of it, nor of those men who lead their lives according to it, since it is a holy law, and ought not to be published by profane mouths. If then it please thee, O king, thou mayest write to the high-priest of the Jews, to send six of the elders out of every tribe, and those such as are most skilful of the laws, that by their means we may learn the clear and agreeing sense of these books, and may obtain an accurate interpretation of their contents, and so may have such a collection of these as may be suitable to thy desire" '.

' When this epistle was sent to the king, he commanded that an epistle should be drawn up for Eleazar, the Jewish high-priest, concerning these matters'.

## THE ALEXANDRIAN LIBRARY

Josephus further tells us that the translations were made, approved by Demetrius after he had read them, and then handed to the king, who 'adored them; and gave order that great care should be taken of them, that they might remain uncorrupted'.

This is the alleged origin of the famous Septuagint, so called because it is said that seventy Rabbis were engaged upon it.

Athenaeus says that amongst the works procured for the library were those of Aristotle, which were purchased from Neleus. The works of Sophocles, Euripides, and Aeschylus were borrowed from the Athenians, copies being taken of them and sent to the owners in place of the originals.

A notable literary change took place in the days when Callimachus, the poet and philosopher, ruled over the library. Writers forsook the great dramatic themes of war, adventure and catastrophe. In their place pastoral poems became the vogue and scholars wrote of simple country scenes and incidents, of shepherds dreaming beside murmuring brooks, and so on. It was then that Theocritus produced his idylls.

In addition to pastorals, however, a kind of realistic comedy was written in which the peculiarities and weaknesses of citizens were depicted in a humorous, mocking manner. Menander, writing at Athens, perhaps was first among the writers of this 'new comedy'.

Under the administration of Callimachus, who was probably the greatest of the earlier librarians, a catalogue was prepared. It filled one hundred and twenty volumes and was a complete index to the authors and titles of all the books of any value, in the estimation of Callimachus, in the library. The title given to this work was 'A Catalogue of all sorts of things'. This most sensible librarian is credited with the saying that 'a big book is a big nuisance', meaning, of course, that a long work in a single roll was naturally very difficult to handle. With this view impressed upon his mind he adopted the method of dividing works into several rolls, each of which was called a 'book', in the sense of a 'part'. In this way arose the division of the Iliad and the Odyssey, the history of Herodotus, and other famous works.

A code of laws for banquets, written by the courtesan Grathaena, is mentioned in this catalogue, and also works by Aegimius, Hegesippus, and Metrobius on the art of making cheese-cakes!

As I have already said, Ptolemy, hearing of the wisdom of the Hebrews, sent for the sacred books, which he was instrumental in

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having translated into Greek for more general use. He also collected the books of the ancient Egyptians, of the Chaldeans and even of the Romans, employing great numbers of scribes to translate them.

There is a great divergence of opinion among the early writers as to the number of books the library actually contained. Georgius Cedrenus says 100,000; Seneca reports 400,000; Josephus tells us 200,000, which was to be increased to 500,000; Aulus Gellius (a writer worthy of more general attention than he is accorded) says that the number rose to 700,000; Ammianus says the same. Isidore, strangely enough, gives 'seventy thousand books', but perhaps this is a slip for 700,000. Eusebius gives 100,000 at the death of Philadelphus; Epiphanes, earlier, says 54,800. Orosius tells us 400,000 volumes were burnt with the fleet by Julius Caesar. Usually, I think, the figure is put at 500,000.

Tzetzes, writing in the twelfth century, says, apparently on the authority of Callimachus, that 'the outer library' contained 42,000 rolls, and the inner library 490,000 rolls. Further, 'from an examination of the catalogue', that of the latter 90,000 were 'unmixed rolls', *i.e.* containing only a single work each; while 400,000 were 'mixed' rolls, *i.e.* containing two or more distinct works each.

It does not seem to be generally realized, however, that the rolls (*volumina*) here spoken of contained far less matter than an ordinary printed volume of average size. For instance the 'Metamorphoses' of Ovid in fifteen books were counted as fifteen volumes and one Didymus is said by Athenaeus to have written 3,500 volumes. This consideration may account to some extent for the discrepancies and will, at least, bring the larger numbers within the bounds of credibility.

Strabo describes the library itself in this manner:—'It has a colonnade (*peripatos*), a lecture room (*exedra*), and a vast establishment where the men of letters who share the use of the museum take their meals together. This college has a common revenue and is managed by a priest who is over the museum. . . .' There are no remains of the building itself now in existence, but, judging from the descriptions which have survived, it was fairly typical of the general Greco-Roman style.

It seems to be fairly well established that among the first librarians at Alexandria were Zenodotus, Demetrius of Phalerum, Callimachus, Eratosthenes, Apollonius, Aristophanes of Byzantium, Lycophron of Chalcis, Alexander Aetolus, and Aristarchus of Samothrace.



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I do not know any work which gives all these names but I think they certainly must be accepted as librarians at Alexandria during a period of about 100 to 150 years. Few historians agree as to the order in which they occupied the position but it is obviously futile in most cases to discuss whether one preceded or succeeded another, for some of them most certainly worked together. In those days, as now, more than one competent librarian laboured in a library. Thus we find that Alexander Aetolus was in charge of the tragic poetry, Zenodotus arranged the epic, and the lyric, and Lycophron was responsible for the classification of the comic poetry.

One brief biographical note may not be out of place, however. Lycophron, the celebrated author of the *Alexandra*, was the adopted son of Lycus the historian of Rhegium, sometimes known as Butheras. He was born about 330 B.C. and went to Alexandria about 284 B.C. Great enmity had apparently existed between Lycus the historian and Demetrius of Phalerum, librarian to Ptolemy I. Demetrius had endeavoured to persuade the king from giving the succession to the crown to his son by Berenice, but none the less Ptolemy II (Philadelphus), on the abdication of his father in 285 B.C., came to the throne. On the death of Ptolemy I in 283 B.C. Ptolemy Philadelphus had Demetrius put under ward. He did not live very long after, however, being bitten in his sleep by an asp. The death of his father's enemy apparently proved a benefit to Lycophron when he was at Alexandria. In the library he seems to have been responsible for the arrangement of the comic poets. Further than this practically nothing is known of his life, and of his death we know nothing at all unless we are to assume from Ovid that he was slain by an arrow:

Utque cothurnatum cecidisse Lycophrona narrant,  
Haereat in fibris fixa sagitta tuis.

The one point which particularly concerns us, however, and which may be gathered from the foregoing summary, is that Lycophron was not a librarian at the Alexandrian Library until after Demetrius had been relieved of his position, that is, not until the reign of Ptolemy II.

A note on the classification of the library may be interesting. Callimachus is sometimes referred to as the 'father of book classification'. Properly the appellation perhaps belongs to Aristotle, but of practical systematic classification he may be regarded as the first. The earlier libraries of Egypt, Babylonia, Assyria, etc., were in

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many instances classified but unfortunately we do not know much definitely either of the schemes or of the classifiers.

From casual references in Dionysius of Halicarnassus, Athenaeus, Suidas, Diogenes Laertius and others, some slight idea of the scheme of Callimachus may be obtained. It is not possible to say very much about it, but as far as one can see the scheme seems to have been arranged more or less in the following classes and sub-divisions:—

Philosophers

Geometry

Medicine

Lawmakers

Feasts

Historians

Orators

Poets

Epic

Tragic

Comic

Dithyrambic

Miscellaneous writers

Birds

Fishes

Cheese-cakes

Various writers on the same subject were arranged alphabetically under that subject.

No doubt a number of smaller libraries existed in Alexandria but the only one of which it is necessary to speak was the one connected with the Temple of Serapis. I do not think its exact position in the Serapeion has yet been determined. It is supposed to have contained about 42,000 books. Anecdotes connect this library with the library at Pergamum as well as with the great Alexandrian one, but it is not at all certain that there is any truth in them.

A great portion of the library at Alexandria was burnt (probably accidentally) when Caesar, following Pompey into Egypt, was attacked

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by a mob in the streets of Alexandria. Despite many 'definite' statements by various writers it is still uncertain exactly how the building caught fire. The destruction took place in 47 B.C. but it seems unlikely that the library was completely burned. In any case it could not have existed later than 272 A.D. when the Brucheion quarter of Alexandria was completely razed to the ground during Aurelian's invasion.

Thus it is difficult to see how the Caliph Omar's army could have destroyed the library in 642 A.D., although even to this day there are certain scholars who persist in believing the story.

The fable itself was narrated originally by Gregorius Bar-Hebraeus about 600 years after the taking of Alexandria. His rather impressive version runs as follows: 'John, the grammarian, came to Amrou, who was in possession of Alexandria, and begged that he might be permitted to appropriate a part of the booty'. 'Which part do you wish for?' asked Amrou. John replied, 'The books of philosophy which are in the treasure (library) of kings'. Amrou answered that he could not dispose of these without the permission of the Emir Al-Moumenin Omar. He wrote to the Emir, who replied in these terms: 'As to the books you speak of, if their contents are in conformity with the Book of God (the Koran), we have no need of them; if, on the contrary, their contents are opposed to it, it is still less desirable to preserve them, so I desire they may be destroyed'. Amrou, in consequence, ordered them to be distributed to the various baths in Alexandria to be burnt in the stoves; and after six months not a vestige of them remained.

John of Alexandria was dead before the date when this dialogue is said to have taken place! The late Dr W. E. A. Axon told this story of the fable well in his article in the *British Almanac and Companion*, 1876, but by far the best examination of the legend is the work of P. Casanova, who read a paper on the subject before the Académie des Inscriptions et Belles-Lettres on 28 March 1923.

It is somewhat remarkable to note that Seneca is almost savage in his denunciation of the Alexandrian library. He describes it as being rather a pompous spectacle than a place of study; a work of extravagance without even being learned extravagance. Nevertheless it is difficult to estimate our own debt to the work of the first two Ptolemies, whatever may have been their reason for amassing the collection. We may at least give them the benefit of the doubt.

Within the last few years the admirable Loeb edition of Callimachus has been issued. For the benefit of those who may be interested it



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is only right to mention that pages 6-11 of this edition are devoted to a discussion of the question of Callimachus' librarianship. It is not definitely proved in the estimation of Professor A. W. Mair that Callimachus ever was librarian of the Alexandrian Library. The professor quotes some of the authorities for the common assumption and correctly points out that they do not *prove* anything of the kind. At the same time, after reading his notes I must confess that my own opinion is unchanged. Students of library history must here, however, as in similar instances, study the older authorities themselves and draw their own conclusions, not, of course, without paying due regard to the views of authorities like Professor Mair.

## Notes and News

### PILLOW-MOUNDS

Mr R. C. Bosanquet writes :—Apropos of ANTIQUITY, I, p. 432—mounds alleged to be artificial rabbit-warrens. There are such groups in Wales : see the Inventories of the Royal Commission on Ancient Monuments in Wales.

(1) Montgomeryshire inventory, no. 463. Parish of Llanfihangel Yng Ngwynfa : so-called ‘ Soldiers’ Graves ’. Add to what is printed there that one measures 30 feet by 14 feet, another 40 feet by 12 feet, and that when I saw them one *was* tenanted by rabbits.

(2) Radnorshire inventory, no. 327. Parish of Llanelwedd. ‘ Long Barrows ’ on sunny side of a hill sloping to river Wye. Described as having ‘ a rudely formed stone trench ’ running through the centre from end to end. The rabbit-theory was reported as follows by our inspecting officer : ‘ a belief is current among some of the residents that they were formed as breeding-shelters for rabbits on their first introduction into the country nearly a century ago ’.

(3) Radnorshire, no. 355 A. Parish of Llanfihangel nant Melan. Over 30 long mounds on south side of a hill.

(4) Cardiganshire. Inventory not yet made. Similar mounds stated to exist in parish of Llanfair Clydogan, see text relating to (1) above. ‘ On higher ground ’.

(5) Monmouthshire. Parish of Dingeston. These too are on sloping ground. I saw them many years ago.

Rabbits were introduced into the Highlands by Sir Hector Mackenzie, 4th baronet (1758–1826), of Gairloch. His grandson, Osgood Mackenzie, in *A Hundred Years in the Highlands* (Edward Arnold, 1921), quotes the following from an uncle’s account :—

‘ We carried the hamper [of rabbits] to some sandy banks . . . busy hands and spades soon built up twenty or thirty foot refuges of turf, like six-inch square drains . . . ’.

I suspect that people trying to establish a stock of rabbits on unclaimed hillsides were advised to make such tunnels in mounds thrown up for the purpose. Hence the ‘ rudely formed stone trench ’

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in the Radnorshire examples. Sporting literature of the period may confirm.

[The subject of pillow-mounds is dealt with very fully in the introductory chapter of *Wessex from the Air*. The evidence is conflicting, but the rabbit theory seems to be supported by a number of independent witnesses. Editor].

## EXPLORATIONS IN THE LIBYAN DESERT

Two officers of the Sudan Administration, Mr Douglas Newbold and Mr Kennedy Shaw, have just returned from a journey of 1000 miles. They started from El Obeid at the end of last October and crossed the Libyan Desert in a great curve, of which the most westerly point was the oasis of Nekheila (lat.  $18^{\circ} 52''$  N., long.  $26^{\circ} 6''$  E). Here (and elsewhere) on the route, rock-pictures, pottery and stone implements were found. Nekheila is a large depression of about 50 square miles containing a salt lake some 4 acres in area, and a number of groves of date-palms. It was only discovered in 1925 by the Citroen car expedition of Prince Kemal El Din Hussein, accompanied by Dr Ball (Director of Desert Surveys in Egypt); but no detailed account of their journey has yet been published. Mr Newbold and his companion stayed here for ten days, and made a survey of the oasis. Rock-pictures betraying Libyan influences were discovered, and it is noteworthy that the camel is never depicted. A second and smaller oasis was discovered some 20 miles NE of Nekheila; this was previously unknown.

On 7 December the party took the open desert for Selima, on a curved route to the west of the famous Arba'in Road, a distance of 275 miles without grazing or water. This country was a complete blank on the map and equally unknown to the Arab guides; the direction of march was controlled by compass bearings and theodolite observations for latitude. This desert must be one of the most desolate bits of the world's surface. Low sandstone ridges alternated with sandy wastes, flat and featureless as a gramophone disc, and with hardly a trace of vegetable or animal life save for a dozen patches of dried grass and the bodies of dead migrant birds.

This stage of the journey took 20 marches, ten days. It was hoped that either on or near the route taken some trace of the legendary oasis of Zerzura might be found. This has been reported by Arabs



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from Egypt for over a century but no one has seen it and it may prove to be mythical. No sign of it was discovered.

On 16 December Selima (lat.  $21^{\circ} 17''$  N, long.  $29^{\circ} 18''$  E) was reached in safety and after a short stay the party proceeded to the Nile opposite Abri, and thence to Wadi Halfa.

The above account (abridged from one published in the *Sudan Herald*, 14 January 1928) has been communicated by Mr Douglas Newbold, who has already made many interesting discoveries in the desert. A description of his previous journey in 1913 appeared in *Sudan Notes and Records*. In our next issue we shall publish a fully illustrated account of these results, which are of great archaeological importance (see *ANTIQUITY* I, 353-5). In this article Mr Newbold will give a general account of his discoveries on both journeys and the conclusions which may be drawn from them.

## HISTORICAL CYCLES

We have received the following criticism from Professor Sir Flinders Petrie :—

The observations of Mr Collingwood on Historical Cycles appear to mix two irrelevant subjects, the personal choice of style, and the repetition of similar periods. The differences of opinion about preference in art or in subjects have no bearing on questions of repetition. Whether a person prefers the coins of Heraclitus or of Syracuse, the sculptures of Constantine or the Aeginetan marbles, the pictures of the catacombs or Botticelli, the spelling of Bellicia or Felicia, has no relation to the fact that each of these styles had precursors or successors at about equal intervals of time. The only reason for taking the defining point at the close of archaism and the complete freedom of expression of form, is because that is the point most free of personal prejudice and the most precisely notable. The result would be the same if we took as a defining stage the rise of mechanical copying, or the least resemblance to natural forms, only the definition would be much less precise. In *Revolutions of Civilisation* I gave as full examples of the fall as of the rise of art (define which as you prefer) ; each is good evidence of the successive changes. To take the simile which is put forward, a ' man's shadow moves with every movement he makes ', but it falls in the same direction, at the same time of day, wherever he stands. It will show him the length of the day and the time of day, wherever he may repeatedly observe it. So observation of any

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recurring stage of art serves to show the length of a cycle and the stage of its development.

It is by the combined study of the art, economics and politics of the past that we can record the reasons for the changes which took place, and it is quite untrue that if we knew more of the Dark Ages they would be light. Bede in the Dark Ages is a much better historian than the Augustan Lives, the kings of the Heptarchy are better described than the emperors : yet we do not hesitate to speak of the Dark Ages. To take an obvious case : look over a series of inscriptions in historical order of the first six centuries—as at the Lateran, and see the steady change in regularity of writing and spelling :—is this passing from light to darkness, or from darkness to light ? When we clear our minds to see the problem of repetition of cycles in all forms of expression, apart from that of personal preferences, we reach to the beginnings of a scientific history.

## METEOROLOGY AND ARCHAEOLOGY

Dr J. P. Williams Freeman writes :—

In an article published in the *Meteorological Magazine* of January 1928, it is suggested that help might be given by antiquaries and historians in determining the climatology in different periods of history ; and it is pointed out that such help would not be necessarily disinterested, since varying climatic conditions must have had an important bearing on social conditions. The article is occasioned by the very interesting paper of Mr George M. Meyer on ' Early Water Mills in relation to changes in the rainfall of East Kent ' published in the *Quarterly Journal of the Royal Meteorological Society*, October 1927. Mr Meyer calls attention to the evidence of lawsuits and disputes as to the water-supply of mills, and to the silting up of the mouths of small rivers owing to the diminished scour of their streams at certain periods of the Middle Ages. His conclusion is that the streams of East Kent were more powerful at the end of the eleventh century than they are today, that there was a definite shortage of rainfall about 1275, and that the rainfall about 1303 was much less than in 1217. The article also points out with other evidence that in the two centuries between 1051 and 1250 twenty-three floods are recorded and twenty-one droughts, whereas in the century and a half 1250 to 1400 the records give only fourteen floods, but twenty-seven droughts. Such facts as these taken together may well help meteorologists towards determining the relative rainfall of the centuries.

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Several recognized facts in archaeology leave no doubt as to the great lowering in the general level of the water-table in the chalk from Romano-British times onwards, though so far it has not been possible to find definite indications as to the periods of maximum diminution.

General Pitt Rivers in excavating the well in the Romano-British village at Woodyates, Dorset, found a Roman bucket at the bottom of it, 60 feet above the level to which modern wells have to be sunk in the immediate neighbourhood.

Comparison as to the present summer sources of our winter-bournes with their highest springs, which run only in the wettest seasons, points unmistakably in the same direction. It will be found that these highest occasional springs are very frequently, perhaps usually, close to the site of some ancient vill or manor, frequently of Saxon origin, and sometimes of Roman. It is impossible to suppose that such sites were chosen for the sake of a spring which only broke out at intervals of several years; they must at that time have been perennial. An examination of a small piece of country of about six miles by four in north-west Hampshire shows that the average level of the highest occasional springs is 50 or 60 feet above that of the present perennial sources of the streams. Such instances give us no dates of the retreat of the water-tables, but it might be possible to find instances of early mediæval mansions having been built for the first time at a known date at the sites of springs which are now dry. Other evidence of the retreat of the ground water is seen in the spring-ponds of the chalk—deep conical pits sometimes 20 or 30 feet in depth which are occasionally found near the heads of valleys now dry; in one, or two, water still rises in their bottoms in the very wettest years, and they have evidently been dug and deepened since early times to keep pace with the water as it gradually retreated.

It is noticeable how many fifteenth and sixteenth century houses in England are built on the north slopes of hills and face north, in marked contrast to nearly all Roman sites. This may have been due to a warmer climate in these centuries. Andrew Boord, priest and physician, writing about 1542, says:—‘Then he that wyll buylde, let hym . . . ordre and edefye the howse, so that the pryncypall and chyefe prospectes maye be Easte and West, specyally Northeast, Southeaste, and South-west, for the merydiall wynde, of all wyndes is the moste worste, for the South wynde doth corrupte and doth make euyll vapowres. The East wynde is tēporate, fryske, and fragraunt, the West wynde is mutable, the North wynde purgeth euyll vapowres. Wherefore better it



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is of the two worste <sup>t</sup>y the wyndowes do open playne North, than playne South'.\* And in Gough's edition of Camden's *Britannia* (first published in 1586), speaking of Oxford, it is said :—'The plain in which it stands is defended by woody hills, which shut out on one hand the unhealthy South wind, and on the other the violent West wind, and admit only the gentle East and the North wind which drives away all pestiferous vapours'. These preferences seem hardly appropriate to our present climate.

The attempt to estimate the rainfall of former years by the breadth of the annual rings of old trees can hardly be included in archaeology, nor does it seem likely to be of much value in this country.

## VOLUBILIS

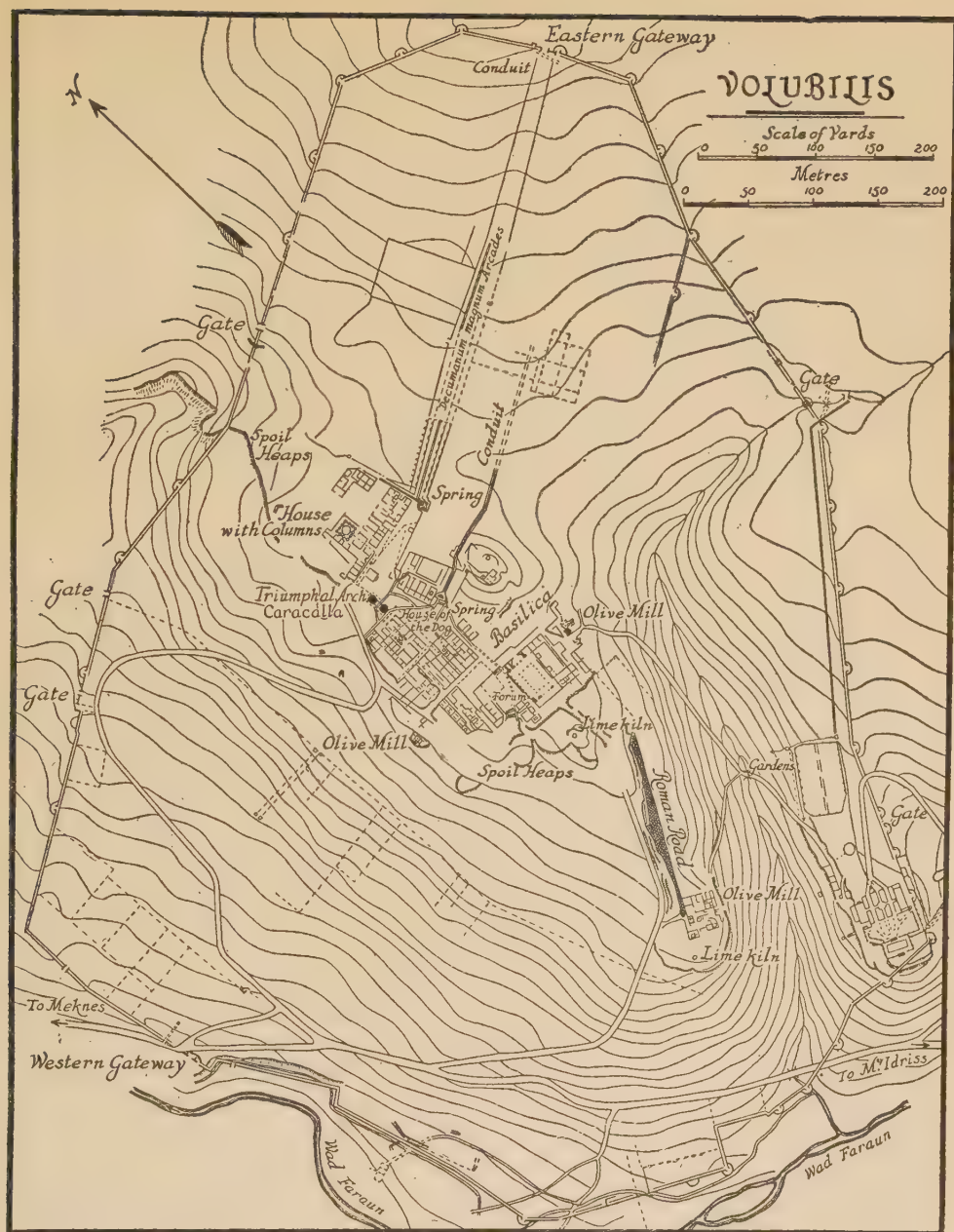
In a recent number of *La Géographie* there was published a paper on the Roman city of Volubilis, by M. Salesses, a retired Colonial Governor. The following summary of his article has been revised by M. Salesses himself, to whom also we are indebted for permission to reproduce his map, which has been redrawn.

Traces of Roman occupation are, in general, much less numerous in Morocco than in Algeria or Tunisia. There is, however, one outstanding exception, namely Volubilis, a deserted Roman city, about two-thirds of the way from Rabat to Fez,  $18\frac{1}{2}$  miles north of Meknes and  $43\frac{1}{2}$  miles west of Fez, on the line of the route from Taza which connects Algeria with Morocco. Its ruins cover about 97 acres, and the Roman wall, which is still visible, is flanked by some 35 to 40 bastions and measures 2,770 yards in length. The circumference of Pompeii is 3,930 yards and its area 170 acres, so that Volubilis had probably about two-thirds the importance of Pompeii, and its population, taking account of the usual density at the period, may have numbered from twelve to fifteen thousand in its palmy days.

The stones of Volubilis, which came from the quarries of Mount Zerhoun, about a mile to the east, are of limestone. The site of the town is a long ridge of the same formation between two ravines running north and south, which are usually dry. The western ravine outside the walls contains the remains of a suburb and also the exclusively pagan steles of a cemetery, which is later in date than the reign of Hadrian. The eastern ravine seems not to have been inhabited, though

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\* *A Compēdyous Regyment or a Dyetary of Helth*. Compyled by Andrew Boorde. (London, Robert Wyer, N.D.)



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its western side is marked by a wall which appears to be a fortification of Punic origin, and at the eastern side one can distinguish the traces of a Roman camp. The circuit of the walls, which is pear-shaped, was pierced by eight gates, still in existence, and the enclosed area is divided into two by a wall of late date, running north and south. The rounded bastions which flank the walls are separated by distances of from 35 to 65 yards, and the strongly cemented walls are more than a metre in thickness. Their height was about  $4\frac{1}{2}$  yards above their remains. The later wall, built of fragments of the older construction, was also one yard in thickness but its foundations were only two feet in depth, so that the roads of the first Roman period which cross it at right angles are 5 feet below its foundations. This account shows that Volubilis had at least three fortifications, corresponding to three periods, (1) the Punic period, followed by a pre-Roman period from Zama to the Emperor Claudius, (2) the true Roman period and (3) a late epoch, roughly between A.D. 300 and 780.

The town was supplied with water in two ways—in the Punic period by the stream Oued-Faraoun, and in the pre-Roman and Roman period by two distinct canalizations, capturing the streams of Mount Zerhoun at Fertassa. So far there has been no discovery of a circus, a theatre, or large baths, only of two small bathing establishments. The principal monument of Volubilis is the Basilica, parts of which belong to different periods, (1) a pre-Roman part of characteristic massive architecture, (2) a temple with porticos, dedicated to the family of Antoninus Pius and dated by an inscription of A.D. 138–180, (3) a temple, also dated by an inscription of A.D. 218, raised to the Capitoline Jupiter, Juno and Minerva. To the west of the Basilica is the Forum. Another important monument is the Triumphal Arch of Caracalla, erected in A.D. 217, and still partly standing in 1721, according to John Windus, the English traveller who saw and drew it.

As has already been mentioned, there have not yet been found at Volubilis a circus, a theatre, or large baths such as exist at Cherchell, and unless fresh discoveries are made, one must conclude that the Romanization of Cherchell was more complete than that of Volubilis, and that the latter town remained fundamentally more Carthaginian than the other, which was also founded by the Phoenicians, under the name of Iol. Arabian authors refer perhaps to the reputation of the Carthaginians for magic when they accuse Volubilis of being a city of magicians. According to the same writers, there were both Christians and Pagans at Volubilis, but, apart from a little bronze censer with a







IRON OBJECTS FOUND AT BATTLE, SUSSEX  
*By permission of the 'Sussex County Magazine'*

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cross which M. de la Martinière claims to have found on the ramparts facing the Oued-Faraoun, there has been discovered no certain trace of Christianity. All the funerary steles are Phoenician or Roman, and bear pagan invocations or symbols. A fine mosaic found at the foot of the late wall already mentioned presents a number of Greek crosses drawn in white on a red or blue background, but this may be no more than a coincidence.

The history of Volubilis was, shortly, as follows. It was first of all a Punic or Punico-Berber town, like Tebessa in Algeria. The reigns of two Mauretanian kings, Juba II and his son Ptolemy, from B.C. 25 to A.D. 40, resulted in the Romanization of Volubilis. From A.D. 40, when Ptolemy was murdered by Caligula, to about A.D. 300 it was part of the Roman Empire, with the *jus civitatis minuto jure* which the Emperor Claudius accorded the town in 44 in its capacity of a *municipium*. Later it obtained the *jus civitatis* from Caracalla, and probably the rights of a *colonia* with which it is credited in the Antonine Itinerary. From 300 to 788 Volubilis passed through a long obscure period, probably troubled by Donatists, Vandals, Berbers and Arabs. During this period it is mentioned only in the geography of 'Ravennas' (c. 636). According to Arab writers it was, in 788, neither abandoned nor converted to Islam. After 788 came the conversion to Islam of the Pagans, Christians and Jews of the region by Moulay Idris I, and the abandonment of Volubilis.

M. Salesses, who has copied more than two hundred of its numerous and beautiful Roman inscriptions and restored some of them, is now writing a handbook (in French) about Volubilis and an English edition of the same, for the numerous travellers who visit the ruined town every year. A guide-book of this kind is very much needed.

## RELICS OF THE BATTLE OF HASTINGS

When ancient remains are found someone generally attributes them to a battle. We were once assured by a museum attendant that a case of Romano-British objects were relics of a battle which did actually occur on the spot—during the Civil War! The objects illustrated (see plate) have been claimed as genuine relics of the Norman Conquest, and if so, since the Battle of Hastings was one of the decisive battles of the world, they are of great historical interest. They were found in 1927 on the site of the battle, during drainage operations in Battle beneath the road between St. Mary's church and the church



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of St. Martin's abbey, opposite the SE corner of St. Mary's churchyard. The road in question is an old one, quite possibly of prehistoric origin. Here it forms the main street of Battle, having the name ' Upper Lake ' and ' Down Lake ' where it passes the abbey—perhaps an echo of Senlac ? This street exactly follows the divide or watershed between the basin of the river Brede and that of the small stream flowing out into the sea at St. Leonards.

Such a spot is of great strategic importance. The road is a ridgeway which led—in prehistoric times to Caburn and the chalk downs near Lewes ; later from Hastings to London. Hastings itself is a prehistoric site. Flint implements have been found on the SE slopes of the castle hill and on Fairlight Beacon, where the ridgeway ends. It may even have been occupied in Roman times ; the castle itself stands inside an earthwork of rectangular form and the old name Hæstinga ceastre (1050) strongly suggests Roman activities. Further evidence is found in the alignment of the Roman road from Rochester and Maidstone southwards. This road can be traced through Staplehurst and Hemsted Park as far as Bodiam Castle, where it is lost. Throughout its course it aims directly at Hastings. Did William the Conqueror know of the existence of this road ? Did he perhaps follow it, and its branch which goes off eastwards in Hemsted Park, on his march to Dover ?

We wish to thank Mr Raper of Battle, the present owner of the relics, for some of the information quoted above, and Mr Arthur Beckett, Editor of the *Sussex County Magazine*, for the loan of the block of the plate, which was published in that journal in February 1928. It appeared also in the *Hastings Observer*, 22 October 1927.

## MEDITERRANEAN ROCK-CUT TOMBS

The custom of burial in artificial caves was wide-spread in Mediterranean Lands during the Bronze Age. These are known to have existed in Southern France, Majorca, Sicily, Malta, Syria and Palestine. Too little attention has hitherto been paid to the plan, which throws light upon the religion of the makers. An admirable description of some Majorcan tombs (by Mr W. J. Hemp, F.S.A.) fully illustrated by photographs and plans, will be found in *Archaeologia* (vol. lxxvi, 1927, pp. 121-60). The subject is far too vast to be dealt with in the form of a note, and we shall not attempt it. An article might well be devoted to it, and perhaps it may be possible later on to publish one. Although differing in details there





THE CROSS OF ST. JOHN, IONA  
*Ph.* John Dunlop

*facing p. 215*



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is a striking family resemblance between all these caves, suggesting some, perhaps remote, community of origin and religion. For the benefit of those who may wish to pursue the subject further we quote here some recent accounts :—Sicily ; P. Orsi : *Necropoli e stazioni sicule di transizione* (Bull. di Paletnologia Italiana xxviii, 1902 and xxix, 1903). Malta ; Annual Report of the Museum Department for 1926–7, p. iii (first discovery of ‘neolithic’ rock-cut tombs in Malta and Gozo). Syria ; tombs at Mishrifé, near Homs, excavated and described by Comte du Mesnil du Buisson in ‘Syria’, vol. viii, 1927, part 1 (published by P. Geuthner, 13 rue Jacob, Paris). Palestine ; a Bronze Age burial-cave near Neby Rubin, district of Jaffa, described in Bulletin no. 2 (1926) of the Palestine Museum, issued by the Department of Antiquities for Palestine. This tomb is assigned, by means of the pottery, to the middle Bronze Age of Palestine, the orthodox date of which is, approximately, 2000–1600 B.C.

### THE CROSS OF ST. JOHN, IONA

The fragments of this cross have been fitted together and set up in front of the cathedral ; the work has been carried out under the supervision of Professor R.A.S. Macalister, whose account appears in the *Glasgow Herald* (22 September 1927). No attempt was made ‘to present a deceptive counterfeit of the old work’ ; and, as will be seen from the illustration, not much was really missing. Professor Macalister refers to the interest taken in the cross by the late J. Romilly Allen (see *Procs. Soc. Antiq. Scot.* xxvii, 1891–2, 256) and Macgregor Chalmers, as well as by Mr John Macdonald and Mr Ritchie, the latter being the official custodian of the remains in Iona. He continues :—

‘The dimensions of the cross as restored are :—Height above top of base, 14 feet ; breadth across arms, 7 feet 1 inch ; diameter of ring, 4 feet ; breadth of shaft at base, 1 foot 7½ inches. St. Martin’s cross, according to Sir Henry Dryden, measures 14 feet 3 inches, exclusive of the base on which it stands, and is only 3 feet 11 inches across the arms, the ring having a diameter of 3 feet 7 inches.

‘In decoration the cross of St. John may be described as being of the “Kildalton” type, which is peculiar to the Western Islands of Scotland. St. Martin’s and some others of the fragmentary crosses of Iona belong to the same group. Its characteristic is an exuberance of ornament as contrasted with figure-sculpture, and especially the presence of that curious device the “birds’ nest” decoration, with

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associated figures of coiling serpents. Several of the panels on St. John's cross are variations of this theme. In two places on the western face the "birds' nests" are replaced by open hollow circular sockets. I suspect that these were originally filled with insets in polished marble'.

' Much of the head of the cross and the margins of the panels of the shaft are filled with interlacing work of almost painful minuteness. This is a feature that is especially characteristic of the Scottish sculptured stones, and that sharply differentiates them from those of Ireland. The explanation of the difference is simple. The art was imported from Ireland into Scotland, not boldly carved on heavy blocks of stone, but delicately traced on the pages of finely illuminated gospel-books. These were the models which were set for the imitation of the sculptors by the Irish missionaries, who brought the faith from Scotia Major to Scotia Minor ; and the sculptors, it must be said of them, nobly faced and surmounted the enormous difficulties thus placed in their way'.

' As to the date of the cross, I should on Irish analogies have assigned it to the tenth century, but it may be a century later. Its date cannot be far removed from that of St. Martin's cross, which the inscription . . . declares to have been made by, or under the auspices of, a certain Gilla-Crist. I can find only two persons of this name recorded in connection with Iona, both abbots, the first from 1057 to 1062 (which are possible dates), the second from 1198 to 1202, which is far too late'.

' I have not yet mentioned what is perhaps the most peculiar feature of the cross—a detail, I believe, quite unique. I have said that the four quadrants of the ring were originally separate stones, secured by tenons into mortices cut in the sides of the cross-head. The cross-head was also a separate stone from the shaft, and was secured in like manner. This is common enough, and in fact is the most economical way of carving such a monument. But there was an additional deep mortice on the very summit of the cross, where no additional stone was to be expected. Hunting about, I discovered a fragment in the cathedral with a tenon upon it, which seemed as though intended for a mortice of about the same size, and on trial I found that it exactly fitted, that it supplemented the top ornament in an interesting manner, and that it added to the cross a unique cresting unlike anything I have ever seen or heard of in any monument of the kind. In this cresting is the only figure-sculpture on the cross. On the western face the Return of the Prodigal Son is represented ; the eastern cresting is too

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broken for its subject to be identified. A peculiar fact about this cresting is that it is in a different stone from the rest of the monument ; it is in the micaceous schist in which some of the other crosses are carved while the rest of the monument is, I think, in whinstone '.

' In conclusion I may add that before fixing them together I had casts made of the fragments of the upper portions of the monument and these will be placed in St. Ronan's chapel. It will thus be still possible to study the minute decoration as closely as if the stones were still lying about on the ground and not raised to an inaccessible height of twelve to fourteen feet '.

We wish to thank Mr John Dunlop, of Glasgow Academy, for kindly allowing us to reproduce his splendid photograph, and Professor Macalister for the loan of the cutting from which the above account is taken.

### NEW CAMP ON THE BERKSHIRE DOWNS

Mr Stuart Piggott writes :—

In the boundaries of land in Sparsholt, given in a charter of A.D. 963 (Birch 1121, Kemble 1247), mention is made of a certain ' Hremnes Byrig ' which has been identified by Dr Grundy (*Berks. Arch. Jour.* vol. xxxi, no. 1) as Ram's Hill, about one mile east of White Horse Hill. The whole hill, which lies within the 700-foot contour, is now under plough. I visited the site on 18 March, and found that traces of the entrenchments which the ancient name of ' Ravens' Camp ' would lead one to expect can be distinctly followed round the top. There is no trace of a ditch remaining, and the vallum is greatly spread—in the best preserved parts some 50 feet in overall measurement with a vertical height of about 3 feet. The entrenchments follow the lines of the hill and generally conform to the usual ' hill-top camp ' form.

There was no trace of any pottery or worked flints to be found within the camp area, but as I was leaving I picked up, on the east slope of the hill, a number of fragments of Roman pottery. Unfortunately I had very little time to search but I found about twenty pieces in five minutes. They mostly consist of coarse greyish wares including several of the ordinary cooking-pot rim types. One rim-fragment of a red-painted mortar is matched at Silchester (May, *Sil. Pot.* pl. LIV, no. 94) and is type 122 in the first Wroxeter report, where the form is assigned to late 3rd and early 4th centuries. I have found an exactly similar rim-fragment at the Cranhill farm villa (Letcombe) and the



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type occurs at Lowbury Hill (*Excavations*, fig. 16, no. 15). The fragments in general bear a distinct resemblance to those from Cranhill farm, while some are similar to pottery from Round Down, Harting.

In the Ashmolean Museum there is 'an enamelled bronze stud, 22 mm. in diameter and 2 mm. thick, with red enamel in between an interlaced design. Found by Mr R. Walker of Uffington "just over the hill SE of the horse on the margin of a ploughed field where it meets rising ground. This field is strewn with pottery"' (Letter from Mr E. T. Leeds, 1 July 1927). This site seems to fit in with the position of the Ram's Hill field.

### THE FAYUM

In a letter to *The Times* (17 April, p. 12) Miss Caton-Thompson gives a resumé of her work in the Fayum desert.<sup>1</sup> Excavations on the Neolithic mounds and granaries have been continued, enabling a division of the 'Fayum industry' to be made, both on stratigraphical and typological grounds, into two distinct stages. No fewer than 115 straw-lined granaries have been found, though in bad condition.

A large gypsum granary and plaster-works of the early Old Kingdom have been discovered. The site is within 30 miles of the monuments and cemeteries of the Pyramid Age, and there is little doubt that it was an important source of supply for mortar and plaster. Some 2,500 unfinished gypsum (alabaster) vases, together with quantities of the flint tools—hollow crescentic grinders, pointed hand-picks, and end-scrapers—which fashioned them, were found. Close by is the workers' village of some 250 stone hut-circles, the first Egyptian examples which it is possible to date.

Work on lake-levels has been continued, with the result that the fourth dynasty shore-line has been fixed at about 145 feet above present lake.

The principal discovery of the season has been that of the irrigation works of Ptolemy Philadelphus (B.C. 285-247), and Miss Caton-Thompson gives some most interesting details of the circumstances which led to this. In past seasons she had noticed a faint line of double embankment running past a group of mounds of Ptolemaic houses, and later examination revealed a thin green haze of sprouting weeds, not only on the embankment but continued on from both its extremities in

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<sup>1</sup> For Miss Caton-Thompson's account of her work in the seasons of 1924-5 and 1925-6 see *ANTIQUITY*, vol. I, p. 326.

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parallel lines over the desert. Along the margins longitudinal cracks could be seen at intervals. Trial sections showed sand-filled irrigation channels with feeders to the numerous desert depressions which occur some miles north of, and far above, the present lake. Gradually a whole network of channels, some 30 feet wide, were traced, these becoming more noticeable as the plant-life grew. Some 16 miles are already mapped, levelled and fixed, and 21 square miles of barren desert is shown to have been at one time cultivated land. A stone-lined reservoir 33 feet deep has been cleared. It was filled with drift-sand and the existence of former vine-yards was proved by the quantities of vine-branches in the sand. A rock-hewn cutting was found with a double flight of steps leading to a tunnel 6 feet wide by 6 feet high and 110 feet long, apparently an unfinished drain. The whole system was supplied from a main canal, which links up, ultimately, with the Nile. The period is dated conclusively, for a coin of Ptolemy Philadelphus was found at the quarry which supplied the stone for the reservoir, and six others of the same period were found in a house near an irrigation channel.

## THE ORIENTAL INSTITUTE OF CHICAGO UNIVERSITY

A review of the work of the Oriental Institute of the University of Chicago has been issued by Professor J. H. Breasted, the Director. The Institute was organized in 1919 by funds provided by Mr Rockefeller, junior. Lately special attention has been given to Hittite sites. During the last two seasons an expedition to central Asia Minor has been organized under H. H. von der Osten and no fewer than 55 new and unmapped sites have been disclosed in a preliminary exploration within the great bend of the Halys river, some being of considerable extent.

One of the sites, near Alishar Hüyük, 128 miles from Angora, was systematically excavated in the Spring of 1927, and the pottery sequence and the material necessary for dating the successive levels in an ancient Hittite site have been established. One of the most important discoveries has been a series of Hittite bodies, which should enable the physical race of this people to be identified. The coming season will be devoted to the excavation of a citadel identified with the Hittite hieroglyphic people (as distinguished from Hittite cuneiform people).

The Palestine expedition of the Institute is engaged on the excavation of ancient Megiddo (Armageddon). Clearance of the site

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shows that human occupation goes back to the Stone Age. A bronze statue of the God Resheph as a Hittite warrior has been found, and part of an inscribed monument of victory recording the capture of Jerusalem by the Pharaoh Sheshonk (c. 947-925 B.C.)

An architectural branch of the Institute has been organized under the charge of Professor Uvo Hoelscher, and the palace of Rameses III (1198-1167 B.C.), connected with the Medinet Habu temple, has been excavated. An exhaustive report on this temple is to be published.

The Institute also directs its attention to prehistoric man and an expedition has been sent to north-east Africa and western Asia under the direction of Dr K. S. Sandford and Mr W. J. Arkell. Outside the Nile Valley palaeolithic implements were found in geological deposits on the Red Sea coast. This is the first discovery of stratigraphically dated human handiwork on this seaboard. The expedition has also made certain investigations in the northern Fayum.

Among other activities of the Institute is the compilation of a dictionary of cuneiform. The files already contain over 630,000 cards, about two-thirds of the known material. The work was begun by the late Professor D. D. Luckenbill, and is now under the editorship of Professor E. Chiera. (*The Times*, April 13, p. 10).

### BRONZE STATUE IN CYPRUS

A well-preserved bronze head of heroic size has been found by a peasant at Kythraea, in Cyprus. There are also fragments of what appears to be the whole of the rest of a nude statue. The find was brought to the notice of the Governor, Sir Ronald Storrs, and photographs have been submitted to the British Museum. The opinion is that the head represents a Roman Emperor, probably Septimius Severus (died A.D. 211), in the character of a god. The statue is to be reassembled and the god whose character the Emperor assumed may then be determined. (*The Times*, 13 April, p. 14). We are indebted to *The Times* for permission to publish the illustration of the bronze.

### THE GREAT CAULDRON OF FRENESHAM

The following note is quoted from Aubrey's *Natural History of Surrey*, iii (1718), 366 :—' In the Vestry [of Frensham church, in Surrey], on the North Side of the Chancel, is an extraordinary great Kettle or Caldron, which the Inhabitants say, by Tradition, was brought hither by the Fairies, Time out of Mind, from Borough-Hill, about a mile from





BRONZE HEAD FOUND AT KYTHRAEA, CYPRUS  
*By permission of 'The Times'*

*facing p. 220*



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hence. To this Place, if any one went to borrow a Yoke of Oxen, Money, etc., he might have it for a Year or longer, so he kept his Word to return it. There is a Cave, where some have fancied to hear Musick. On this Borough-Hill . . . is a great Stone lying along, of the Length about six Feet: They went to this Stone and knocked at it, and declared what they would borrow, and when they would repay; and a Voice would answer, when they should come, and that they should find what they desir'd to borrow at that Stone. This Caldron, with the Trivet, was borrow'd here after the Manner aforesaid, and not return'd according to promise; and though the Caldron was afterwards carried to the Stone, it could not be received, and ever since that Time no Borrowing there'.

I have seen this cauldron, which now stands in the tower of Frensham church on an iron tripod, hand forged. It is made of a single great sheet of copper, hand-hammered into shape; there are no seams, joints or cracks. The circumference, which is a perfect circle, measures 8 feet 8 inches; the greatest depth is 1 foot 2 inches. The rim is bound with an iron band, rivetted on to the copper. On each side is an iron handle joined to the iron band round the rim. The interior diameter from handle to handle is 2 feet 8 inches.

As to the origin of the cauldron, there are several folk-tales other than those given by Aubrey. One relates that it was dug up on Kettlebury Hill, south of Hankley Common, by the monks of Waverley abbey, and that it was taken by them to Frensham for brewing ale. Another tale says that it was a loan from the fairies of Thursley—there are tumuli in this parish, south of Ockley Common—and that Mother Ludlam, a medieval witch who lived, according to tradition, in Ludlam's cave in Moor Park, was the owner and lender. (This Ludlam's cave is close to Stella's cottage—the home of Dean Swift's idol). The cave was dug by a monk of Waverley abbey, who, when the water supply of the abbey failed, found that three springs joined here, and by enlarging their outlets and bringing them together he obtained a good supply of fresh drinking water; this he conveyed to the abbey through lead pipes for a distance of about half a mile.

The most plausible explanation of the origin of the cauldron is that it was made for the churchwardens of Frensham for the brewing of church-ales. Church-ales are said to go back to the Love Feasts of the primitive Christians; but in more recent times they were brewings by the churchwardens, during which all other brewing in the parish



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was forbidden, the profits being devoted to poor relief, and to the church fabric. The old saying that 'you are sure to find the best ale in the village near the church', probably arose from these ales being held at the 'church-house'. The parish books of Kingston upon Thames show that £7 15s (nearly one hundred pounds of our money) were taken at one of them in 1526. Sometimes a bride-ale was held in the church itself as a Welsh 'bidding'. The bride sold the ale, and each drinker gave what he pleased towards the setting up the young couple in housekeeping.'

I have explored the country round Frensham, but so far I have been unable to identify the 'Borough Hill' named by Aubrey, nor can I find the 'great stone'.  
A. G. WADE.

### HADRIAN'S WALL

In the *Durham University Journal* for March 1928, Mr F. G. Simpson summarizes the important results of work done under his direction on Hadrian's Wall in 1927. The situation before this work was as follows: it was known that the Wall, which is in general about 7 ft. 6 in. thick, stood in many places on a foundation, about 11 feet across, too broad for it. The surplus foundation projects on the south side of the Wall like a footpath. Where it occurs, the Wall is built to its full breadth (apart from small offsets) in the immediate neighbourhood of milecastles and turrets, for a few feet on each side of these buildings, and is then abruptly narrowed to the normal 7 ft. 6 in. The question had often been asked, why the Wall should in many places have been thickened in this way close to milecastles and turrets, and why it should in many places have been built on a foundation 3 feet broader than necessary. Lately it had been suggested, by Dr R. C. Shaw, that the broad foundation had originally carried an earthwork, with stone turrets and milecastles, and that the narrow Wall had replaced this earthwork. Further, in one part, on each side of Birdoswald, there was a turf Wall forming a loop line to the stone Wall, and it had been suggested (though the suggestion had been abandoned for several years) that this was the only surviving relic of Hadrian's original Wall, which on that view was a wall of turf. When, in 1911, it was settled that the stone Wall dated from the reign of Hadrian, the interval of time that separated the turf Wall from the stone Wall became a burning question, especially in view of the fact that the excavators of the nineties, who discovered the turf Wall, reported that they found black peaty matter, which appeared to represent a long



THE FRENHAM CAULDRON

*facing p. 222*





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and slow accumulation, in its ditch where that underlay the stone Wall. This suggested an alarmingly early date for the turf Wall. One other problem calls for mention. The now universally-accepted theory of the Roman frontier is that the ' Vallum ' is a non-defensive frontier-mark of Hadrianic date, constructed contemporaneously with the forts ; and that the Wall, with its milecastles and turrets, was a subsequent but still Hadrianic addition. Now the original Vallum frontier could hardly have been patrolled without intermediate posts of some kind between the forts, which are sometimes as much as eight miles apart. It was an objection to the accepted theory, that no such posts had as yet been found.

On all these questions the work of 1927 shed new and in many ways conclusive light. First, the broad foundation was explained. It was found that the stone Wall, as originally planned, had been intended to be three feet thicker than its final normal width. In one place, near Heddon-on-the-Wall, Messrs. Simpson and Brewis found that it had been actually completed in stone at this breadth ; and in the region near Gilsland Mr Simpson conclusively disproved the earthwork hypothesis and showed that the Wall had been partially but not wholly, built to the broad gauge when orders came to reduce it to the narrow gauge. At the turrets and milecastles, where the building had proceeded further than in the intermediate stretches, the Wall was left its full breadth ; in between these points the broad work was demolished, though it is not certain that very much demolition was anywhere needed, and narrow work substituted. This change of plan during construction (a change of a type familiar enough, for instance, in ancient buildings in Rome itself) explains one whole group of outstanding problems.

Secondly, important new light was thrown on the turf Wall. A section was cut across its ditch where this underlies the fort of Birdoswald. It was found, sure enough, that the ditch contained black matter ; but on careful inspection it was seen that this was not natural accumulation ; but a filling of peat cut in blocks from a neighbouring bog and thrown in, higgledy-piggledy, with heather growing on them, when the ditch was still quite new. A careful expert study of the deposit at the very bottom of the ditch suggested that this artificial filling-up had been done in the same year in which the ditch was cut. All suspicion of a long interval between the turf Wall and the stone Wall, therefore, vanishes.

Another interesting fact about the turf Wall was discovered.

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Hitherto that structure had been known to extend for a mile and three-quarters, from Harrow's Scar on the east to Wall Bowers on the west. Evidence was found that it had extended for more than a mile west of Wall Bowers ; for the next three turrets west of that point were examined and found to show anomalies only explicable on the hypothesis that they had been built not, like most turrets, in connexion with the stone Wall, but in connexion with the turf Wall, though this had been removed and the stone Wall built on its line. These anomalies were twofold : first, the turrets were isolated square buildings not bonded into the Wall ; secondly, they stood close to the ditch, separated from it not by the customary twenty-foot berm of the stone Wall but by the six-foot berm of the turf Wall.

The suggestion thus irresistibly arises that the turf Wall was a temporary structure erected along the line prepared for the stone Wall ; and it is interesting to note in this connexion that square isolated buildings, exactly like these newly-discovered turrets, exist at various places along the coast of north-west Cumberland, and are now conclusively explained as a chain of coastal signal-stations continuing the signal-system of the Wall along the Cumberland coast.

Finally, it was proved that a Roman building on Pike Hill, long known to exist, did not belong to the milecastle-and-turret system of the Wall, and therefore must be provisionally ascribed to the pre-Wall phase of the frontier, that is, to the Vallum system.

Such were the results of a season which, in spite of atrocious weather, proved by far the most important on the Wall since 1911, when the Hadrianic date of the stone Wall was demonstrated.

R. G. COLLINGWOOD.

## THE ANTIQUITY OF IRON-WORKING

Among the archaeological surprises of the post-War period is the unexpected evidence of the early use of worked iron. Mr Woolley has discovered the remains of an iron instrument in the early cemetery of Ur (B.C. 3500), and I can now supplement this discovery from the records of Asia Minor.

At Kara Eyuk, the ancient Ganis, 18 kilometres north of Kaisariyeh in Cappadocia, cuneiform tablets have been found which show that it was a centre of Assyro-Babylonian trade and influence in the age of the Third Dynasty of Ur (B.C. 2300). At that time the metal mines of the Taurus were being actively worked by Babylonian firms, whose representative and agents, mostly Assyrian, lived at Ganis, where their

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offices had been established and their safes, in the shape of hut-urns of terra-cotta, were filled with business letters, receipts of money and goods, 'cheques' and the like. Roads existed north and south of the Halys, along which 'caravans' as well as the post passed, and constant intercourse was kept up, not only with the mining districts, but also with Syria, Assur and Babylon. Besides the individual traders, who do not seem to have been numerous, there were many *illâti* or 'Companies'.

In an article in the *Journal* of the Royal Asiatic Society (April 1928) I have shown that Burus-khatim, where the most important silver-mines were situated, was the modern Bereket-li in the Ala-dagh, where the chief silver-mines in Asia Minor still exist, extending over several square miles. Burus-khatim is called Bursakhanda in the story of the invasion of Cappadocia by Sargon of Akkad (B.C. 2700), and Burus-khanda in the Hittite texts. The latter is clearly the native form of the Assyro-Cappadocian name, Burus-khatim, 'Burus of silver', being an Assyro-Cappadocian play upon the native name with a reference to the Khati or 'Hittites', that is 'the Silver-men'.<sup>1</sup> The name would really be a derivative from Burus (in which I see the classical Borissos) with the two Hittite territorial suffixes *-khe*, 'people of', and *-anda*, 'place'. Equally clearly Bere-ket-li, with the Turkish territorial suffix *-li*, is Burus-khatim (possibly contaminated by the Western Asianic Berekynthos), while in the villages of Borasta and Farash on either side of Bereket-li the old name would also be preserved. At Farash there are ancient iron mines.<sup>2</sup>

The Hittite word *khat(i)*, 'silver', was borrowed by the Assyro-Cappadocians under the form of *khati(m)*. Phonetically it is identical with the Egyptian word for 'silver', *ḥez*, and thus bears witness to the early date at which a trade in silver—maritime rather than overland—must have existed between Egypt and Asia Minor. Many years ago Dr Gladstone pointed out that the Sixth Dynasty silver found by Sir W. Flinders Petrie at Abydos was of Asianic origin. Dr Alan Gardiner

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<sup>1</sup> In BKU x, 31. 4-6, 32. no. 66, 'the Silver-man' (written *Kha-at-wa* in Proto-Hittite) is associated with 'the Dog-man' and said to shout 'Awaya!'

<sup>2</sup> In the annals of Telibinus I, about B.C. 1700 (BKT. II, 1, 44) the name is written 'the mountain of Barsukhandas', and associated with Barminiya or Barwiniya. In the chronicle of the invasion of Cappadocia by Sargon of Akkad also 'Bursakhanda' is described as situated on a mountain (the Ala-dagh). Ala-dagh in Turkish signifies 'horse' like the Arabic Farash (*faras*, 'mare'), Hebrew, *pharash*. The Semitic word was borrowed from the Hittite *paras* 'horse' (from which Barwiniya or Parwiniya may be a derivative).



informs me that the Egyptian word already occurs in the age of the Fourth Dynasty.

Just before the War the peasants unearthed between one and two thousand tablets at Kara Eyuk in a field near the village and not far from the *tel* known as Kul-tepè. These have been scattered in various directions ; a large number now in the British Museum have been published by Mr Sidney Smith, and last year 233 of them, obtained by Professor Breasted at Cairo and copied by the late Professor Clay, were published by the University of Yale.<sup>3</sup> Two of these enable me to throw new and unexpected light on the history of the iron industry.

One of them (no. 92) reads : (1) ' Lakibum writes as follows : (2) Askutum and Kurub-Istar (3) to Ana-nada (4) say : 2 talents, 10 manehs (5) of lead with your seal (6) and 4 shirts (*kutani*)<sup>4</sup> (7) Ana-Samsi (8) has brought. The lead (9) we have packed, and (10)  $2\frac{2}{3}$  manehs of raw metal (*imti*), (11)  $\frac{1}{2}$  maneh, 6 shekels (12) of pure metal (*barzi*) to the house of the *garum* (13) we have paid. (14) The rest of the lead, (15) 2 talents,  $6\frac{2}{3}$  manehs, 4 shekels (16) of lead we have reserved, and the silver (i.e. payment) (17) we send you (-*tum* miswritten or miscopied for -*qu*). (19) In accordance with your order (20) Ana-Samsi has brought down the whole to you '.

The second document (no. 50) runs as follows : (1) ' To Uzua, Mazâ, Sume-abia, (2) Asir-malik, Amur-Asir, (3) Su-Anum, Asir-imeti and (4) Amur-Istar writes as follows (5) El-meti :  $4\frac{1}{4}$  shekels of iron (*parzi-ili*) of the best quality, (6) complete, with my seal, Amur-Asur, Su-Anum (7) Asur-imeti and Amur-Istar (8) have taken to you. My brother [has said] : (9) give us this iron at its (10) value, half a maneh (11) of silver with the seal of Iti-abem, (12) which Amur-Asur on behalf of Nisini (13) has taken, and for us with (14) the price of the iron, viz. half a maneh of silver, (15) seal it and to Amur-Asur (16) give it, and on behalf of Nisini (17) let him bring it '. The rest of the letter is occupied with the despatch of *beriganu* or ' breeches ', a word by the way which casts light on the origin of the Keltic *braccae*.

The second document reveals to us for the first time the origin of the Semitic word for ' iron ', *barzel* in Hebrew (Chaldee *parzel*), *parzillu* or *barzillu* in Assyrian. In the tablet it is written ideographically KÛ-AN, ' metal of the god ' or ' metal of heaven ', the Sumerian AN having both significations, the first signification being represented in Semitic by *barzi-ili*, while the second appears in Egyptian as *ba-n-pe(t)*,

<sup>3</sup> *Letters and Transactions from Cappadocia*, by Albert Clay. New Haven, 1927.

<sup>4</sup> Hence Greek χιτών (originally a Karian word according to Herodotus, v, 88) and Hebrew *kuthoneh*.

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'metal of heaven'. Like the name of 'silver' it would thus seem that the Egyptians derived their name for 'iron', and therefore the metal itself, from Asia Minor, and it is significant that at Farash, on the eastern side of the Bereketli mines and on the old high-road from Kaisariyeh to Syria and Cilicia, there are ancient iron mines. The name indicates that the first iron to be worked was meteoric, and accordingly a Hittite text informs us that while gold came from Birununda and copper from Mount Taggasta in Alasiya, iron 'came from heaven'. At Ephesus the great mother-goddess of Asia Minor was symbolized by a meteoric stone (which with its binding of woollen threads denotes 'deity' in the Moscho-Hittite hieroglyphs). The Hittite texts further distinguish iron from 'black iron', but as 'iron-stone' is also mentioned, it is possible that haematite may be meant. Sir William Ramsay tells me that the ground at Yalowaj (Pisidian Antioch) is covered with fragments of haematite.

In my article in the *JRAS* already referred to I have noted that iron-working is described in an early Hittite text which Dr Forrer would date before B.C. 1900. We learn from the text that an iron-foundry already existed at Buruskhanda where an 'iron chair with an iron footstool', called a *khankutim*, had been made for the Hittite king. At a later period (14th century B.C.) the king of Kizzuwadna (Cilician Komana) writes that none of 'the best iron' was left in the store-house at Kizzuwadna, but that as soon as it could be obtained 'the chief smith who works the best iron' will soon finish the dagger-blade needed by the king's correspondent, who was probably the Egyptian Pharaoh. The 'chief-smith', by the way, is given the Sumerian title of *tibira* or 'smith', which was naturalized in Asia Minor as we learn from the name of the Tibareni, the Tabal of the Assyrians and Tubal of the Hebrews. The antediluvian city of Bad-Tibira, 'the fortress of the Smith', in Babylonia becomes Panti-bibla in the Greek of Berossos. In the Old Testament we find Tubal-Cain by the side of Cain, 'the Smith', who gave his name to the Kenites or wandering 'Tinkers', and it is possible that Kenite and Tubal-(Tabal) were eventually differentiated, Kenite signifying 'copper-smith' while Tubal (-Cain) was 'iron-smith'.

However this may be, the discovery of the etymology of the word *barzel*, *parzel*, 'iron', clears up the name and character of the mysterious 'Perizzites' of the Old Testament. They were the 'metal workers', more especially the workers in iron, who are named along with the Kenites, Hittites, Amorites, Hivites or Akhaeans (Hittite Akhkhayawa) and other inhabitants of pre-Israelitish Canaan. A. H. SAYCE.

## Recent Events

*The Editor is not always able to verify information taken from the daily press and other sources and cannot therefore assume responsibility for it.*

Sir George Macdonald's 'Rhind Lectures', delivered in Edinburgh during March, dealt with Roman Britain. The treatment is historical, and northern Britain naturally receives a good deal of attention. The history of Roman Scotland has been reconstructed almost entirely by means of excavation, and Sir George has himself written most of it. The publication of his lectures in book form will be eagerly awaited. (*Scotsman*, and *Glasgow Herald*, 20-24 March).



A proposal to establish a museum at Basingstoke has been put forward by Mr G. W. Willis, a former mayor of that town. The country round is rich in remains, especially worked flints, as the presence of more than one private collection, including that formed by Mr Willis, indicates. It is to be hoped that the project will be strongly supported by residents in the district.



An enclosure of dry-stone walls called 'The Castles', in county Durham, has recently been visited by Professor Petch of Manchester University. It is very puzzling. The corners are sharp, not rounded as are the corners of Roman forts. In the wall, on each side of the entrance, is a 'guard-chamber'. The remains are well preserved and deserve fuller investigation.



The boy who found the gold coins in a hollow flint at Chute (*see* ANTIQUITY, II, 89) has received more than £50 for them from the



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Treasury. Thus is virtue rewarded ! When such finds are duly reported to the police by the finder the Lords of the Treasury pay him 80 per cent. of the archaeological value of such as they keep and return the rest to him. In this instance they kept (for the British Museum) sixty-five of the ninety-three coins, the rest being bought by Captain B. H. Cunington for the Devizes museum and for disposal to other museums and collectors. (*Wiltshire Gazette*, 9 February).



The excavations at Kingsdown Camp, near Mells, Somerset, have revealed remains of two periods—Roman and earlier. The rampart stands between an outer V-shaped (Roman) and an earlier flat-bottomed ditch. The Roman objects included a coin of Domitian (struck 86 A.D.), an iron dagger, fragments of Samian pottery, and several bronze brooches, 'all apparently of the early Roman period'. The site will be visited by the Somerset Archaeological Society, which meets at Bath in July. (*The Times*, 23 February, p. 17; 30 April, p. 11; 15 May, p. 14).



A basalt column containing a military inscription of Thothmes III (1501-1447 B.C.) has been found at Tabgha, north of the lake of Genesareth. (*Pester Lloyd*, Budapest, 11 February).



A French expedition is exploring Ahaggar, the mountainous region of the central Sahara, between Air and Fort Flatters. Dr Leblanc is the anthropologist of the party. (*La Dépêche*, Toulouse, 22 February).



The finds at Dendra, at the foot of the Mycenaean citadel of Midea in Argolis, are described by Mr A. J. B. Wace, writing on behalf of Professor Persson of the Swedish Expedition in Greece, in *The Times* (27 February, p. 17). Thirty-three objects of bronze were found in a rock-cut tomb.

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A pile-dwelling has been found in the Plinlimmon district of Wales, at an altitude of 1500 feet. It is to be excavated. (*Western Mail*, 3 March).



The site of Dougga (earlier Thukka), in Tunisia, is to be excavated this year under the direction of M. Poinssot, the Director of Antiquities. An interesting account of the town and its temples is printed in *The Times*, 14 May, p. 17.



A pre-Roman cemetery with rich grave-goods has been found at Caivano in Campania. It is to be excavated by the Department of Antiquities. (*The Times*, 26 March, p. 15).



Reproductions of some barbarous sculptures in Cyrenaica are published in the *Illustrated London News* for 10 December 1927. They seem to be of Graeco-Roman age.



An urn of the collared type found in a cist at Slapton in South Devon has been described and illustrated by Mr H. G. Dowie. (*Trans. Torquay N.H. Society* (1926-7), v, part 1).



The Kent Archaeological Society proposes to start an excavation fund for exploring the ancient sites in the county. Kent is one of the most 'historical' regions in England, and we wish the venture every success. The secretary of the organizing committee is Mr F. C. Elliston Erwood, Jesmond Dene, Foxcroft Road, Shooters Hill, S.E.18.



A book on British river-names by Professor Ekwall is announced by the Oxford University Press. Such a work has long been needed, and the one promised will certainly become the standard authority on the subject.

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The excavations at St. Catherine's Hill, Winchester, will be renewed during August. Work will be concentrated on the prehistoric (Iron Age) camp, the entrance to which revealed so many interesting features last year. A full account of the whole work will eventually be published by the Hampshire Field Club. An appeal for subscriptions has been issued (hon. treasurer, Mr S. R. Hamby, 9 College Street, Winchester). The work is important but incomplete and deserves the fullest support ; it is in good hands.



The Cambridge Museum of Archaeology has been enriched by the addition of the late Sir William Ridgeway's collection, which contained amongst other things many specimens of primitive currency ; a number of objects from South Africa obtained by Mr M. C. Burkitt during a recent visit there ; objects from Eskimo sites in East Greenland obtained by the Cambridge University Expedition ; and several specimens of local interest, including two beakers from near Ely and beaker-fragments dredged from the river Wissey, near Stoke Ferry, Norfolk. (*Annual report of the Faculty Board of Archaeology and Anthropology* [Cambridge]), 14 February 1928.



To the series of period-maps published by the Ordnance Survey is about to be added a map of England and Wales during the 17th century. It will show the principal towns (based on Speed's Atlas), ports classified according to their importance, some economic features, and the principal Civil War sites. All the roads given in Ogilby's traverses (1672) will be marked. The basis is the new Ordnance Survey physical map. A new and greatly enlarged edition of the map of Roman Britain is also announced, as well as a second edition (slightly enlarged and brought up to date) of *Air Survey and Archaeology*.



The second interim report on the excavations at Caer Hun (Kanovium) near Conway, in North Wales, is published in *Archaeologia Cambrensis* (December 1927, pp. 292-332), with a plan.



Dr Roy Chapman Andrews, after much delay, has organized a further expedition to Mongolia to find traces of primitive man. He left Kalgan early in April. (*The Times*, 17 April, p. 15).



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Mr Cecil M. Firth, of the Egyptian Department of Antiquities, is continuing his work at Sakkara, and has completed his investigation of the extraordinary structure of red granite at the bottom of a pit in the southern temenos wall of the Step Pyramid, and which is thought to be a funeral chamber. The chamber contained only stone chips and débris. Though there is no evidence that it ever contained anything, the excavation has revealed a tomb of exceptional interest. Excavation of other parts of the Pyramid enclosure is being pursued and has already led to interesting discoveries which are reported in *The Times* (17 April, p. 15 ; 24 April, p. 15).



Dr. S. Langdon, Joint Director with M. F. Watelin of the Oxford-Field Museum Expedition at Kish reports on the work of the sixth season, which closed on 15 April. The Expedition has concentrated on the ancient mound north-west of the great stage tower of Hursagkalamma, or ancient eastern Kish, built entirely of plano-convex bricks, the only known stage tower of its kind. The date of construction is before 3000 B.C. At a depth of 25 feet below the ruins of the temple of the Sargonid period (c. 2700 B.C.) a sterile stratum seven feet thick was met, with a continuous red earth stratum five feet thick which extends over the entire mound, and represents the Sumerian temenos platform on which the stage tower and three great temples of Kish were built about 3000 B.C. Most important evidence for dating the evolution of ancient civilization was found. Temple records and seals definitely date this red layer as before 2900 B.C. A mat burial of a woman, with solid gold fillet about her head and many ornaments, and a lapis lazuli seal, were discovered. A series of brick-vaulted tombs of small plano-convex bricks was found below the level of the stage tower. In two of the tombs were chariots, with the bodies of the oxen which drew them, and also those of attendants and servants.

The Expedition also completed work at Jemdet Nasr begun by Dr Langdon in 1925-6. Painted pottery of thick polychrome geometrical type and tablets in early pictographic script were found.

(*The Times*, 17 May, p. 12)

## Reviews

THE NILE AND EGYPTIAN CIVILIZATION. By ALEXANDER MORET. Kegan Paul. 1927. pp. 478, and 24 plates. 25s.

The value of this work consists in the outline of the social and political history, as derived from tradition and documents. For dealing with such a subject Professor Moret is well qualified, as he has translated and published some of the documents, and is well acquainted with the literary evidence, especially ceremonial and religion. For this side of the subject therefore this volume may well serve for agreeable general reading, and for reference, although it repudiates the literary evidence of the chronology. But unfortunately the literary mind does not readily grasp archaeological facts, and the account ignores the three long civilizations of the prehistoric ages, which probably cover as much time as the historic period. The vague gleanings about early times that may be derived from written material is left entirely in air, without any connexion with the course of development now so fully known in detail, and as familiar to us as the condition of the historic ages. Even when coming to the First and Second dynasties only very incomplete accounts by French writers are referred to, in less than a page, while the full record of each royal tomb and its contents and inscription, published in England, seems unknown to the author. When reaching the Third dynasty the most important discoveries of early architecture at Saqqarah in recent years, illustrated in popular papers, are entirely unnoticed. The work therefore needs another of equal size in order to fulfil its professed title, especially as it says nothing of the physical conditions of the Nile which rule Egyptian history, and head the title.

Some details also need revision. The cattle register held every two years is referred to as a census of 'fields and moveables assessed in gold'; it is hard to see any trace of such a reading of the plain cattle census in the early Annals. The earliest cartouche is before Snefru, and the fantastic idea of its representing the course of the Sun is entirely baseless; it was the form of the collar of the high priest of Ra, and refers to the priestly origin of the kingship. Later on, the whole history of the VIIIth and VIIIth dynasties is ignored, both the monumental lists of the kings, and the actual remains, showing the Syrian origin of the rulers. On coming to the great discoveries of the royal mummies they are ascribed to the French Directors, but both of them were found by native plunderers from whom the secret was bought. Akhenaten and his astonishing scientific worship of nature, are but little noticed, nor is the probability of his lovely queen heading the Counter Reformation even hinted. The fable about walls being built of mud, *pisé*, is seriously stated, while no such wall has ever been found in Egypt, regularly laid bricks being universal. Various other details might also be mentioned needing revision.

The duty of a translator ought to extend to quoting the literature of the fresh language. On the contrary English works are almost ignored, and only French books are named which are seldom in English libraries. This ignoring of discoveries and works other than French was seen in another volume of this series, *Race and History*, where

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Professor Pittard only quoted what little was guessed about Egyptian anthropology forty years ago, and knew nothing of the thousands of dated skulls of all periods and their complete publication by Professor Pearson's department. Such volumes have no business in an English dress when they are entirely ignorant of English work.

The whole question of the linking of traditional history with material civilization in each country is urgent at present. The linguist does not comprehend archaeology, and the archaeologist is repelled by the vagueness of accounts over the origin of which philologists wrangle. For Egypt we need the traditions and early religion joined with the very definite archaeology, which varied in every generation during thousands of years. In Greece the early myths and tribal histories need consolidating on the tangible remains. In Palestine the early Biblical history should be understood in the light of the well-dated town sites now uncovered. In Britain the civilizations that have been traced should stabilize the early traditions of migration, and be interpreted by the written history in Welsh, which is at least more satisfactory than the records of the Irish and Picts which go back to the first and second century. The passion for denial which reigned from Niebuhr to Cheyne has had a salutary check in many countries, and we must the rather take all the material facts discovered as a skeleton, and see how that is to be clothed in the fabric of traditions, sometimes tattered, and sometimes gorgeous with national vanity.

FLINDERS PETRIE.

THE DRUIDS. By T. D. KENDRICK, M.A. Methuen & Co. 1927. pp. 222, and 51 illustrations. 12s. 6d.

This is, as it claims to be, a 'complete and well documented summary of the whole of the pertinent material upon which a study of this subject should properly be based'; but the material is scanty, and our knowledge of the druids must necessarily remain meagre and nebulous.

The author first treats with the tradition of the druids, and shows that the Saxons blotted out all memory of them, neither Bede nor any of the chroniclers having mentioned them; that there are no ancient place names which suggest that any megalithic monument was built either for or by them, and that there is no direct link between the druids of ancient times and the modern disciples of neo-druidism, 'with all its extravagances and impostures'. 'A knowledge of the former existence of the priesthood was regained slowly and laboriously in the 16th century as a result of the return to the study of the ancient historians. And it has shown that the theory, now so popular, that the druids built the megalithic monuments, was an invention of the late 17th century, successfully promulgated in the succeeding century by Romanticism'. As regards Stonehenge, until Aubrey (1626-1697) made his tentative suggestion that it was built by the druids, no author and no folk-lore had associated the structure with them.

The most interesting chapter in the book is the one on Prehistory, perhaps because it is a digression, but a necessary one, in which, like a detective with slender clues who works round the periphery of the case and having fixed his suspicions on one or two possible culprits gradually narrows down his sphere of action, Mr Kendrick begins with a description of the condition in Gaul during the Bronze Age with its division into three cultural areas, and discusses the influences from without which caused the dissemination of the cultures of the Iron Age. He disbelieves in a 'leaf-shaped sword' invasion, and states as his opinion that the Urnfield folk from south-east Germany absorbed a Hallstatt culture and, by means of 'culture-creep', and not by a movement of



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peoples, modified the Bronze Age culture of Gaul about 1000 B.C. The 'frill-comb-smear' pottery folk from the north of Germany spread westwards and reached the Thames valley, Kent and Sussex about 600 B.C. The later La Tène civilization was a natural development from the Hallstatt, and was propagated by a great movement of peoples during the 5th, 4th and 3rd centuries B.C.

Resuming his main thesis he shows that Britain was the fountain head of druidism and that the druids were famous in Gaul as early as the 2nd century B.C., and flourished in Anglesey as late as the first century of our era. This is the only definite information we have. The Belgae can be excluded from the possible originators of the cult since they came from Germany, and we know on the testimony of Caesar that there were no druids in that country. The Ligurians can also be excluded, because they were essentially an agricultural and peaceful people, and druidism was intimately connected with militarism. The Aquitani too, can be excluded because there is no record of druidism in Spain or Portugal. Conjecture falls on the Kelts, who originated in the south German plain and enjoyed the culture of La Tène. The Phoenicians did not touch Gaul, but about 600 B.C. Greeks founded colonies in the neighbourhood of Marseilles and soon exerted an influence on the culture of Gaul.

If the druids were Keltic, did they exist side by side with a Keltic religion, or were they the only representatives of religion? And in any case what were their functions? These are questions which Mr Kendrick strives to answer, but with one exception all the references to the druids in classical literature were written after the Roman occupation of Gaul, and most of them at second hand. The confusion among the writers as to the actual functions of the druids makes their evidence somewhat untrustworthy. This much however can be assumed—that the druids believed in the immortality and reincarnation of the soul, and that they practised human sacrifice; but there is no evidence that they were possessed of remarkable learning.

When Mr Kendrick speaks of Stonehenge, a visible structure which has been partially excavated, as opposed to classical references which may, or may not, have been distorted by the many mouths through which they passed before being perpetuated in writing, his arguments run the risk of being refuted by evidence revealed by the spade, the only sure weapon in scientific controversy. As for the purpose of Stonehenge, all is conjecture; and other things being equal, one guess is as good as another, but some of Mr Kendrick's assertions can be negated by the results of excavation. He implies that the Aubrey holes were made to contain the bluestones from Prescelly soon after the erection of the original sarsen circle at the beginning of the Bronze Age. There is no evidence however that those stones ever stood in the holes. He goes on to state his opinion that the restored structure, as we see it today, was built 'as a rallying-point . . . for druidism . . . in the first century B.C.' But one of the few certain dates, if not the only one, in connexion with the construction of Stonehenge is that the tooling of the stones took place during the early half of the Bronze Age. As confirmation of this we have the record of the finding of fresh humanly struck flakes of both sarsen and bluestones associated with a primary Bronze Age interment in barrow 16, just west of Stonehenge. In this cist were also a bronze knife-dagger and a bronze pin (Hoare, *Ancient Wilts*, i, 127). Again the fact that beaker fragments are not found in the silting of the ditch at a lower level than that of the layer of 'masons' chips' is evidence that the reconstruction of the monument happened at a time when beakers were still in everyday use. Mr Kendrick states that there is no evidence that the druids were connected in any way with either megalithic tombs or stone circles; but, after all,

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Stonehenge is a stone circle, albeit an elaborate one, in the same way that Westminster abbey is just as much a church as the modest place of worship in any village.

The author comes to the conclusion that druidism was Keltic in origin, 'for the reason that the Gauls in one of the proudest moments of their history would never have tolerated the imposition of a foreign priestly caste able thoroughly to dominate both their civil and religious life'.

This book is not easy to read, and some of the arguments are at first not easily followed, but the subject is a difficult one, for the data are few and must needs be purged of the romance that encumbers them. It is in all probability the last word on druidism, for it is unlikely that any further information on the subject will come to light, but, as the author confesses, he has been able to offer nothing better than what he knows to be surmise. It is by far the best book that has been written on the subject.

R. C. C. CLAY

THE PLACE-NAMES OF WORCESTERSHIRE. By A. MAWER and F. M. STENTON in collaboration with F. T. S. HOUGHTON. English Place-Name Society, vol. 4. Cambridge University Press, 1927. 20s.

The first thing that strikes one about the Place-Name Society's new volume is its size, viz. 420 pp., as compared with 316 last year (Beds. and Hunts.) and 274 in the initial county volume (Bucks). No member of the Society is likely to complain at getting so much for his money, but this arithmetical progression can hardly go on indefinitely. The arrangement of the volume is, like that of its predecessor, by Hundreds, and it includes valuable addenda and corrigenda to those already published.

Of especial interest in this county are the old 'salt-ways', for 'Droitwich and its neighbourhood were the only places in central England where salt was produced in the Middle Ages'. Some of the 'salt-ways' are still known by that name and no fewer than fourteen are here traced, their former courses being indicated by sporadic Saltway barns, Saltway farms, Salters hills, etc. For the river-names the earliest records are given, but 'their interpretation is reserved for the present, as they can only satisfactorily be dealt with as a whole'. This seems to promise us a volume on river-names, to be produced when more material from the whole country has been collected and analyzed.

The county of Worcestershire was considerably modified, both by addition and subtraction, in the course of the 19th century. Our authors have adopted the inclusive method, lost Worcestershire for the historical student and new Worcestershire for the general public. At the outset they are baffled by the name Worcester itself. Camden derived it from Wyre Forest, a theory which Professor Ekwall is inclined to approve. The prevailing Wigorn-, till lately the signature of the bishop, may be cognate with a Gaulish stream-name Vigora, and Wyre may be for an earlier Wigra (a stream-name transferred to a forest?). This is, of course, all purely conjectural. Cotswold, which looks difficult, is here confidently assigned to a personal name Codd, perhaps identical with the Cut of Cutsdean, in the heart of the Cotswolds, where there is also record of a Codeswelle. The name seems to have spread from a comparatively small area to the whole region originally known as the 'hill of the Hwicce', the last being a folk-name of mysterious origin and history. All the place-name evidence points to a late settlement

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of the region followed at no great interval by conversion to Christianity. There are only two names connected with heathen worship, viz. Arrowfield, from O.E. *hearg*, heathen temple, whence also Harrow, Middlesex, and Weoley, from O.E. *wēoh*, idol, which appears also in Weedon, Bucks. The archaic type in *-ingas* is altogether absent, while *-ingtun* is strongly represented. The evidence as to the relative importance of West Saxon and Anglian settlements is, on the whole, vague and inconclusive.

An important by-product of the place-name survey will be such an immense addition to our knowledge of Old English personal names as will make possible the compilation of a great Onomasticon. Most of the newly discovered names revealed by the analysis of the place-names in which they occur are of the uncompounded type. In this reviewer's opinion, such names, unless clearly nicknames, are always shortenings from the normal dithematic type. Worcestershire place-names not only show a number of those shortened forms with the derivative suffixes *-il(a)*, *el(a)*, *-uc*, *-ic*, but also with the less recognized suffixes *-t*, *-n* and *-r*.

Some 1500 Worcestershire place-names are dealt with. A few of these are left quite unsolved. It might be worth while, in future volumes, to call particular attention to a short list of the most important insoluble problems. Hundreds of other names are mentioned in connexion with those of Worcestershire, and there is much information on the distribution of the name-elements and on field-names and other minor names. Altogether we have here a volume of which the Society may be proud.

A few queries occur to the reader. I will be satisfied with one. On p. 16 it is suggested that the family name Trapnell, c. 1210 Tropinel, is a diminutive of a variant of Turpin. Langlois (*Tableau des Noms Propres compris dans les Chansons de Geste*) does not record the variant Trop-in, and Tropinel, fairly common in M.E., was earlier Tropisnel, an O.F. name, 'too rash' (cf. mod. Troplong, Trodoux, or Eng. Toogood). The *-s-* would disappear as in O.F. Isnard, O.H.G. *isan-hard*, which is given (p. 157) as the first element of Innerstone, formerly Inardeston(e).  
E. WEEKLEY.

INTERIM REPORT UPON SUCH OF THE STONE CIRCLES OF  
ABERDEENSHIRE AND KINCARDINESHIRE AS HAVE BEEN  
SCHEDULED AS ANCIENT MONUMENTS. Compiled from the Morven  
Records. By ALEXANDER KEILLER. Privately printed. 1927.

This pamphlet consists of brief descriptions with full tabulated information of some of the stone circles of the district. We gather from the contents that its purpose is to draw attention quietly, but effectively, to the present condition of the remains. Every one of them is scheduled under the Act, as an Ancient Monument, but, to judge from the information here given, this scheduling does not achieve the object in view. We gather that in the majority of cases, as might be expected, there is not only goodwill, but enthusiasm, on the part of the owner or tenant, but the machinery by which the Act is worked appears to need overhauling. In many cases, it is stated, the tenant was not aware that a monument on his land had been scheduled. No doubt a good deal of the neglect is due to lack of funds, but we do not think that this is a complete answer. It must always be difficult for those responsible to allocate fairly the funds available between different classes of monuments in their charge, but it is clear that little or nothing has been spent upon the preservation of the Scottish stone circles. In the opinion of the reviewer, preservation should always have precedence over exploration.



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ASIA, EUROPE AND THE AEGEAN AND THEIR EARLIEST INTER-RELATIONS : Studies in Early Pottery of the Near East II. By H. FRANKFORT. London, Royal Anthropological Institute (Occasional Papers no. 8). 1927. pp. xii, 204, and 13 plates. 12s. 6d.

This, the second part of Dr Frankfort's studies in the early pottery of the Near East is practically confined to the Aegean area and it will prove fascinating to all who have worked in that field even if they cannot agree with him. Some of his beliefs seem too confident and some of his deductions hardly justified by the evidence. For instance the statement that in the Second Thessalian period the settlements are fortified rests only on the evidence of Dimeni. Are the sauceboat, the beaked jug, and the spiral each derived from one single source? The spiral occurs in New Zealand and he rightly points out likenesses between Pueblo pottery and Thessalian. Yet he seems occasionally to forget the caution he wisely employs in dealing with the Anau pottery or Dr Anderson's finds in China, though he speaks of Professor H. Schmidt's claim in this connexion as a 'methodological fallacy'. In dealing with the Neolithic period on the mainland he omits Dr Blegen's discoveries at Nemea, the Argive Heraeum, and in Arcadia. Indeed in his enthusiasm to demonstrate his points he almost forgets to take into account other gaps in the evidence or how little exploration has been done in certain districts. He says (p. 136) that in the Middle Aegean period the Cyclades were deserted or cultural blanks except for Melos. This rests only on negative evidence and some of the most fertile islands have not yet been properly examined for prehistoric sites, though such are said to exist. He neglects the report of the last excavations at Mycenae, particularly as regards the Early and Middle Helladic evidence and makes no use of an important class of M.H. pottery, the buff and brown polished wares. The suggestion that the ΓIB ware in Thessaly belongs to the first and the other Γ wares to the second period has not yet been confirmed by fresh excavation. He has misunderstood the synchronisms with the Minoan series for E.H. and E.C. wares suggested (B.S.A. xxii, p. 186) by Dr Blegen and the present writer into an attempt to divide the E.C. and E.H. periods into three subdivisions. In the paper to which he refers no mention is made for instance of E.H. I, II, or III, though they are used in the British Museum catalogue.

It is, however, ungrateful to turn over the author's pages merely for the sake of picking holes in argument or of noting omissions of evidence. Perhaps the Anatolian evidence is too much stressed, since no scientific excavation of a prehistoric site in western Asia Minor—Troy excepted—has yet taken place. We wonder too how great really is the Danubian influence in Neolithic and Bronze Age times on the Greek mainland and whether the author is justified in his bold crossing of the sea to Apulia. After all if the mainland of Greece were invaded from the north by Danubians, from the east by Cycladic folk, and later still from the south by Cretans who as some claim displaced the population in wholesale fashion, we might absurdly conclude there were never any true mainlanders. As it is Dr Frankfort's interesting and stimulating study should encourage the careful collection and collation of evidence, for conclusions should be based only on the fullest corpus of evidence especially where it is ceramic, and should emphasize the urgent need for really scientific excavation particularly on prehistoric sites.

A. J. B. WACE.

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THE MUSEUM JOURNAL, vol. xviii. No. 3 (September 1927); published quarterly by the Museum of the University of Pennsylvania (Philadelphia, Pa).

PALESTINE MUSEUM BULLETINS, nos. 2 and 3; issued by the Department of Antiquities for Palestine, 1926.

ANNUAL REPORTS OF THE MUSEUM DEPARTMENT, MALTA, 1921-7.

COLCHESTER AND ESSEX MUSEUM. Annual Report for 1927. 6d.

Some of the best and most valuable archaeological material lies buried—so far as the general public is concerned—in museum reports. To some extent that is inevitable, and much of the contents concerns specialists only; yet we fancy that even specialists may not all be familiar with the publications quoted above.

Pride of place must be given to the first-named report, which contains two admirable illustrated articles—one on Sumerian sculptures by L. Legrain, the other on Eskimo Pictorial Art by J. Alden Mason. Mr Legrain formerly represented his museum on the Joint Expedition at Ur, and he is well known to students for his splendid publications on Sumerian antiquities (see review by Professor Sayce in *ANTIQUITY*, I, 502-3). The sculptures illustrated are all of interest and several of them are very fine.

The Palestine Museum bulletins contain short illustrated accounts of important finds—a deposit of the middle Bronze Age at Rubin (Jaffa district) in no. 2, and selected types of Bronze Age pottery (occupying the whole of no. 3). The latter will be invaluable to students. It may be worth quoting the dates which have been accepted by Palestinian archaeologists, though they are of course approximations only:—Æneolithic and Early Bronze Age, before 2000 B.C.; Middle Bronze Age, about 2000-1600 B.C.; Late Bronze Age, about 1600-1200 B.C. A similar bulletin, illustrating the types of the Early Iron Age and later periods is promised in due course, and will be eagerly welcomed.

The reports of the Malta Museum—we had almost called them Professor Zammit's reports—testify to the unceasing care and vigilance exercised by the Director and his staff. It will be a surprise to many to learn that there is in Malta a large and very fine museum which, in addition to the world-famous collection of antiquities, has also departments of Natural History, Art and Mineralogy. The archaeological department alone would require several visits before its riches could be fully digested by the student. The Reports consist largely of accounts of tombs, the majority of them rifled in antiquity, and sporadic discoveries. The age of the tombs is still uncertain, for, although many of these contain 'Phœnician' relics, some at least are known to go back to neolithic times; and it is more than probable that the 'Phœnicians' and others rifled and re-used earlier tombs. We welcome this opportunity of paying a tribute of respect and admiration to Professor Zammit, the Director; Maltese archaeology owes everything to his personality. In the past British archaeologists have not taken full advantage of the opportunities for study and exploration offered by Malta. There is a fine field awaiting them, even should they go merely for a 'busman's holiday'. The little-known megalithic buildings at Hal Tarxien, with their wonderful and well-preserved sculptures, the Hypogeum, Hajjar Kim, Mnajdra, the tombs, the cart-ruts, the cave of Ghar Dhalam, the Bronze Age site of Bahria with its splendid incised pottery (still untouched and awaiting excavation)—all these will keep him busy; and he is sure of a warm welcome.

The annual reports of the Colchester Museum are well-known. The museum contains one of the finest collections of Iron Age and Roman pottery in the kingdom. The present report contains the sad news of the death of Mr A. G. Wright, who was the Curator for a quarter of a century, and who did so much to make it what it now is. We

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learn that (like so many others) the museum is understaffed and we hope that the wish expressed by the Chairman and Curator—that an Assistant Curator be appointed—may be fulfilled.

ARCHAEOLOGICAL MAP OF ITALY on the scale of 1 : 100,000. Chiusi Sheet. Istituto Geografico Militare.

The first sheet of the projected archaeological map of Italy has at last appeared ; it contains a hundred and eighty-seven entries in red, blue, orange and purple. There is no attempt at producing a period map, but different periods are shown on the same map by means of different colours. There is no attempt at showing the relief of the ground except by contour lines, the base map being an outline map printed in grey. As an index map no doubt it fulfils a useful purpose.

BRIGHTON AND HOVE ARCHAEOLOGIST. Number 3, 1926.

The form and contents of this number reflect great credit on the Society and its editor. There are not many Societies of the size we imagine the Brighton and Hove Society to be which produce such admirable publications.

Messrs. Toms and Herbert clear up the Roman villa at Preston, in Brighton itself—a useful, though, naturally, not very exciting paper. Mr Toms further contributes a very informing and important paper on ‘ Valley entrenchments east of the Ditchling Road ’ illustrated by plans drawn by Mr Gurd from measurements made by Mr Toms. Mr Gurd is well-known to archaeologists for the very high standard of draughtsmanship which characterizes his drawings. Perhaps the most interesting plan is that on page 44 which shows a valley-entrenchment later than a terrace-way of the double-lynchet type. Now we know that valley-entrenchments are, for the most part, of prehistoric origin, and there is no reason to suppose that this one is any later in date. This gives a respectable antiquity to the double-lynchet way in question. The Curwens contribute an article on Port’s Road, the ancient road of Portslade, also illustrated by Mr Gurd ; and the remaining articles are valuable, but for the most part, of purely local interest. There is a good article by Mr Law on ‘ Old Dovecotes ’, illustrated by photographs.

THE HISTORY AND CIVILIZATION OF ANCIENT MEGARA, 1. By E. L. HIGHBARGER. Baltimore, Johns Hopkins Press. [Johns Hopkins Univ. Studies in Archaeology, no. 2]. 1927. pp. xvi, 222. \$2.50.

This is the first part of the author’s comprehensive work on the history and civilization of ancient Megara, which before the Peloponnesian War played a by no means unimportant part in Greek affairs and for so small a state took an active share in colonization. Selinus in Sicily was a Megarian foundation, but her greatest colony was Byzantium. He commences with an account of the topography and monuments which acts as a kind of new commentary to the Megarian section of Pausanias. Then come two useful chapters on the cults and mythical kings. Next after the Dorian Invasion and the colonizing period follow accounts of the tyranny of Theagenes and the struggle with Athens over Salamis. The Social Revolution and the age of Theognis act as a transition to a detailed description of the part played by Megara through the classical period down to Hellenistic times.

The author has done useful work in this compilation of our existing knowledge about Megara and its history and his discussion of various debatable points, even if a



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final solution is not reached, undoubtedly assists in that direction. Some of the most interesting problems are connected with prehistoric Megara and with its omission from the Homeric Catalogue. The author by the archaeological evidence shows clearly that Megara was a typical prehistoric site and that both Nisaea and Caria must have been town-sites then. He rightly rejects Wade Gery's suggestion that 'perhaps there were no pre-Dorians' in Megara, but goes too far in saying that archaeology favours a Dorian invasion in two streams and that 'Dorian' objects occur on the Acropolis at Athens. It would be wiser at present to maintain an agnostic attitude about archaeological evidence for the Dorian invasion, for we do not know what typically Dorian objects were like. The Geometric bronzes and pottery which some hold to be Dorian represent a phase in the evolution of Greek culture, and although some external influence undoubtedly contributed towards the formation of that phase, we cannot yet isolate or identify precise features which could be proved Dorian. The theory that in Homer Megara was part of Boeotia is rejected, probably rightly, for Homer's silence about Megara can be explained by supposing that it was in a state of temporary eclipse like Thebes. The 'Mycenaean' graves in Salamis fall in the period of transition between the Bronze and Iron Ages, and so do not prove that Salamis was a 'Mycenaean' site, but rather suggest that possibility. It is much to be hoped that Megara will be further explored for prehistoric remains which should throw much light on its earliest history. Then we hope that the author will add to this present study an archaeological survey of Megara with a map, which this volume lacks. Indeed the only plan is one illustrating Pausanias' routes and it is completely unworthy of a serious treatise.

A. J. B. WACE.

SIXTH AND FIFTH CENTURY POTTERY FROM RHITSONA. From excavations made at Rhitsona by R. M. Burrows in 1909 and by P. N. Ure and A. D. Ure in 1921 and 1922. Edited by P. N. URE. Oxford University Press; London, Milford. 1927. pp. x, 112, and 25 plates. 21s.

The cemeteries of Boeotia have long been noted for their amazing richness in pottery of all kinds, but have, however, unfortunately been largely exploited by tomb robbers for the sake of Tanagra figurines once so popular. As a result comparatively little is known about the development and history of Boeotian pottery and it has been so far of little use for chronological purposes in excavations on classical sites in that region. It was therefore a stroke of good fortune that the cemetery at Rhitsona (probably the ancient Mykalessos) fell into good hands, those of the late Dr Burrows and of Professor Ure. Their excavations have been carried on for several years with scientific care and the results have thrown quite new light on Boeotian pottery and revised its dating. This is yet another instalment of the very numerous finds from that cemetery—no exception to the rule, as the length of the list of previous papers dealing with its vases shows—and there is still more to come. The excavators' practice of setting themselves the question whether or no each vase was placed in the grave on one single occasion has led to useful observations on funeral customs. The grave-contents are set out with unlimited patience in matters of detail, but perhaps we miss the breadth of view which the excavators claim cannot be achieved without detailed accuracy. Both are essential, but here we have only one. Each vase is just a vase and serves as a cog in the wheel of chronology, for there is little effort to analyze it further as a funeral offering, a domestic vessel, or as a work of art, though the fact that a few have been previously published elsewhere hints that some are worth noticing for themselves. The manner in which the excavations were conducted and the finds were recorded is admirable and should be a model to

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others. It is good too to have the record fully published with the careful analysis of grave-contents which has enabled the excavators to work out a valuable chronological series. The uninitiated will however find the elaborate detail rather bewildering, and we should be grateful if the excavators could simplify matters a little to help us obtain the breadth of view desired.

A. J. B. WACE.

**LATIN EPIGRAPHY** : an Introduction to the Study of Latin Inscriptions. By the late SIR JOHN EDWIN SANDYS ; second edition, revised by S. G. CAMPBELL. Cambridge, 1927. pp. xxiv and 324. 12s. 6d.

It is a pleasure to welcome this second edition of Sir John Sandys's well-known handbook, considerably improved by the careful and judicious editing of Mr S. G. Campbell. As a general account of the subject, intended, as the preface explains, for classical students who were interested in Latin literature, but were not necessarily aiming at becoming specialists in Latin epigraphy, its merits are now familiar, and need no detailed commendation. Sir John Sandys did not claim to be a specialist in epigraphy nor did he propose to write a book that should be of use to specialists ; his manual, an expansion of the chapter contributed by himself to the *Companion to Latin Studies*, retains in its expanded form its original purpose—that of giving the ordinary classical scholar some insight into epigraphy, its problems, its methods, and its results. Thus the author's aim differed completely from that of, for instance, Monsieur Cagnat in his *Cours d'Épigraphie latine*, which is plainly intended to assist its readers towards the first-hand study of inscriptions. Hence, when Sir John Sandys in his preface calls attention to his own departure from the established practice of epigraphical manuals, and takes credit for cutting out the customary 'elaborate dissertation on Roman Names', 'long lists of Roman Officials', 'disquisitions on the intricacies of the *cursus honorum*', and so forth, and for substituting 'a survey of the principal references to, or quotations from, Latin inscriptions in Classical authors', which 'has not hitherto been attempted in any manual', he is in effect merely enlarging on the difference of aim which separates his book from those he is criticizing. Of his first three chapters—a collection of passages about inscriptions in ancient writers, a history of modern epigraphical collections, and an account of the Latin alphabet—the first two are utterly useless to the epigraphist, while the third contains much material which he does not need and omits a good deal that he does ; whereas the information about names and officials, which these replace, are absolutely vital to anyone who is working at inscriptions for himself. The upshot is that whereas anybody who has much to do with Latin inscriptions keeps his Cagnat where he can grab it without moving from his chair, he will allow his Sandys to find a home on the top shelf. But this is said in no spirit of ingratitude. For its purpose, Sandys's manual is admirable ; and granted its character, such minor blemishes as an over-reliance on Hübner's *Exempla* for illustration (Hübner's drawings are not really faithful copies), or the reproduction of a very inferior photograph of the great Scottish distance-slab, need not be insisted upon.

R. G. COLLINGWOOD.

**THE OUTLINE OF HISTORY** : being a plain history of Life and Mankind. By H. G. Wells. Fourth revision. Cassell. 1926. 2 vols. 36s.

The last re-issue of this famous book deserves some notice in our pages, if only for the reason that it gives so large a proportion of its space to prehistory. There are two volumes in this edition with something under four hundred pages in each, and of these

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well over a hundred are devoted to the time before writing. It is in fact that part of the whole story of man's evolution in which Mr Wells's special talents are best displayed. He has collated with admirable industry and impartiality the works of the general investigators of prehistory—Keith, Keane, Osborn and many more—and has used a shrewd commonsense and above all his own special faculty of imaginative reconstruction on this material with very attractive and persuasive results. It is difficult to say in which part of this earlier section Mr Wells really enjoys himself most, when he is describing the weird and incredible creatures of the primeval slime or when he is thinking out again the lives and thoughts of the earliest men. In this work he has been very notably seconded by Mr J. F. Horrabin, whose ingenious diagrams,\* time-charts and pictures based on palaeolithic cave-paintings add enormously to the value of the 'Outline', especially of this, the fourth remodelling. It is undoubtedly much improved in every way as a popular book, though it is, of course, large and—for the great public—far too expensive. It is not a specialist's book in any section, but it has very special qualities which are accentuated in this edition. By these it has made its mark in the world. They seem to us mainly three. The first is that of creating wonder and curiosity. Interesting and exciting things are selected with an unerring instinct, so that the reader, especially the inquisitive but comparatively untutored reader, leaves off with a feeling of added interest and above all of amazement. 'Who would have thought that history could contain all that?' Then comes the imaginative quality, in which naturally the novelist is pre-eminent. In all parts of the story the writer is trying most of all to see life from within as the men of that time were actually living and feeling it. This is the more successful in the earlier portion which, from the scarcity of the remains and the complete absence of written records, leaves the field open to the reconstructive writer. Thirdly, comes Mr Wells's dominant conviction, in which the writer of this notice agrees profoundly with him, that 'progress' is the keynote to the whole, that we are in history face to face with the supreme movement of existence, and that this is demonstrably in the past towards a higher and fuller state of being. It may lead on to inconceivable heights in the future, and in the truth of this perception the moral and even the religious value of history lies. This is the greatest general idea grasped in our times and belongs to all mankind: Mr Wells has done yeoman service in making it current among all English-speaking people.

F. S. MARVIN.

### THE NATIVE HILL FORTS OF NORTH WALES AND THEIR DEFENCES.

Presidential Address to the Cambrian Archaeological Association. By WILLOUGHBY GARDNER, F.S.A. (*Archaeologia Cambrensis*, December 1926).

Mr Willoughby Gardner's work on the hill-forts of North Wales is well-known to all British archaeologists and in this presidential address he takes the opportunity to review the present state of our knowledge on this very perplexing subject. The primary difficulty lies in the fact that, where these forts have been excavated, it has been shown in most cases, conspicuously in the great strongholds of Tre'r Ceiri in Carnarvonshire, Dinas Penmaenmawr, Pen-y-gorddyn and Dinorben—the last two dug with such interesting results by Mr Willoughby Gardner himself—that they have been either built or rebuilt and extensively occupied during the later phases of the Roman occupation

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\* One new one in this edition (p. 78) deserves special mention. It is a diagram of the relationship of human races, fitted into the map of the Old World. It leaves a permanent impression on the mind, which is a rare thing in diagrams.



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from the second to the fourth centuries A.D., whereas in other parts of Western Europe Romanization implied generally the desertion of the old hill-top strongholds in favour of valley settlements rendered habitable for their inhabitants by the 'Pax Romana', in Wales the reverse process appears to have taken place. However we may account for this,<sup>1</sup> the fact remains that the Welsh hill-forts fall into a class by themselves among British camps. Their peculiar features are in part attributable to their exceptionally late date compared with other hill-camps elsewhere and to the influence on their construction of Roman engineering methods. This is the explanation given by Mr Willoughby Gardner of, for example, the parapet walks on the ramparts of Tre'r Ceiri, Caer Drewyn, Pen-y-gorddyn, and the last period at Dinorben, which is dated by his own excavations to the end of the third century A.D., and also of the elaborate entrances with well developed internal guardrooms found in the three last named forts. It would however be a mistake to regard such features as by themselves implying a knowledge of Roman methods. The inturned entrance, which is the parent of the entrance with internal guardhouses, as is so clearly shown by the successive periods in the Dinorben fort, is found widely both in England and on the Continent in constructions which are undoubtedly long pre-Roman,<sup>2</sup> and though few of these have yet been excavated, it is probable that they will in many cases be found to contain traces of timber guardrooms built into the incurved ends of the ramparts. One example of this type recently excavated on St. Catherine's Hill, Winchester contains such rudimentary internal guardhouses, which produced not only no trace of occupation in the Roman period, but nothing characteristic even of the last pre-Roman period, and appeared from the associated pottery to have been destroyed by fire comparatively early in the early Iron Age. While therefore it is more than probable that Mr Willoughby Gardner is right in attributing these features in the Welsh forts to Roman influence, it would not be safe to use similar phenomena elsewhere as an indication of late date, without corroborative evidence.

It is very disappointing to find that the Welsh hill-forts have so far thrown so little light on that most obscure of all periods of Welsh prehistory, the early Iron Age. The fact that no datable objects have been found, for example, in the first fort at Dinorben, while it certainly suggests a pre-Roman date, is tantalizingly negative in its other refusal of useful information. For, at Dinorben, thanks to Mr Willoughby Gardner we have in the first fort what looks like a promising early Iron Age site, yet it produces nothing more helpful than corroded lumps of iron. We can only hope that Mr Willoughby Gardner will not be defeated, and that future excavations, to the urgency of which he so rightly alludes in his address, will reward his labours. Meanwhile the present paper, with its plans of the principal forts and its comparative diagrams of entrances and rampart sections, is a most useful summary of the present state of our knowledge.

J. N. L. MYRES.

AN EARLY IRISH READER. By N. KERSHAW CHADWICK. Cambridge University Press. 1927. 6s.

A reviewer inclined to be captious might pick a couple of holes in the title of this

<sup>1</sup> Dr R. E. M. Wheeler's theory of a native militia is the most suggestive explanation yet put forward. See *Roman and Native in Wales* (Cymmrodorion Society's Transactions, 1922).

<sup>2</sup> e.g. *Hod Hill*, Dorset; *Hembury*, Honiton, and *Dumpton Great Camp*, Luppitt, Devon; *Gallox Hill* and *Bat's Castle*, Dunster, Somerset; *Old Oswestry* and *Caynham Camp*, Salop. For plans, see A. Hadrian Alcroft, *Earthwork of England*. For German examples at *Altehöfe* and *Fünsterlohr*, see plans in *Præhistorische de Zeitschrift* XI, 108.

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book. What is meant by 'Early Irish'? *Old Irish* and *Middle Irish* we know: these are terms with a definite meaning. But *Early Irish* has no recognized signification in the conventions of Celtic scholarship. Again, is it quite fair to call a book 'a reader' in any language when only six and a third out of its seventy-five pages contain reading matter? It would have been better to have called the book an annotated edition of the *Tale of the Swine of Mac Da' tho'*, the only text which the book contains.

The book is clearly intended for elementary students; but it may be questioned whether elementary students not equipped with a previous philological training ought to tackle Old or Middle Irish at all! The wisdom of providing a translation in a 'Reader', even one intended for self-instruction, may be doubted: and it should be unnecessary to call the attention of a student sufficiently advanced to read this tale to such elementary points as the nasalization following the word *secht*. After the publication of Professor MacNeill's historical studies, there is no excuse for using the word 'tribal' in reference to Ancient Irish social organization (p. 25). In spite of these and other blemishes the book is quite a useful one and those for whom it is intended will learn much from it. But 'Early Irish' is as impossible to popularize as Relativity.

ARCHITECTURE OF ANCIENT GREECE. By W. J. ANDERSON and R. P. SPIERS.

Revised and written by WILLIAM BELL DINSMOOR. Batsford. 1927. pp. x, 241. 21s.

Professor Dinsmoor, of Columbia University, has prepared a revised edition of the *Architecture of Greece and Rome*, of which the present is the first volume. The plan of the original book has been followed, but the revision is so thorough as almost to constitute a new work. The original authors laid great stress on evolution, and consequently adopted the historical rather than the analytical method. The development of architecture is traced from the Aegean age, which, though pre-Greek, necessarily comes under review for historical purposes, down to the Hellenistic and Graeco-Roman period. Owing to the great progress of archaeology in the last 25 years the contents of the first chapter are almost entirely new. The original authors and the reviser have always kept before them the idea of making the book not only a description but a practical guide, and from this point of view the numerous measurements given in the text, and particularly the table of dimensions of the principal Greek temples, are of great value. The section on Greek methods of construction, as discovered by a study of unfinished temples at Segesta, Selinus, etc., should also provide interest for any reader who wishes not merely to contemplate a finished work of art but to consider how it was produced. No method of arrangement is perfect, and some minor criticisms may be made:—for instance, the figures illustrating the evolution of the Ionic capital are excellently chosen, the list including some remarkable examples, such as those from the great temple of Artemis, which do not generally appear in such books; but the subject might have been made easier to the student if examples of various types, arranged historically, had been assembled on a single plate. Again, though several references are made to devices for lighting the Greek temple, this difficult problem is not discussed as a whole and consecutively.

The text is illustrated by 65 plates and 83 figures; a list of the pages on which the illustrations are to be found might well have been added to the 'Contents', but the alphabetical index of illustrations to some extent supplies this want.

The language throughout the book is technical, as befits a practical guide, but the

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path is smoothed for the uninitiated by the inclusion of a full glossary explaining all the architectural terms of which a knowledge is necessary. The general get-up of the book, as regards both the letterpress and the illustrations, is fully worthy of the subject-matter.  
J. F. DOBSON.

MAYA CITIES: EXPLORATION AND ADVENTURE IN MIDDLE AMERICA. By THOMAS GANN, F.R.G.S., F.R.A.I., M.R.C.S. Duckworth. 1927. pp. 256. 21s.

Dr Gann's record of his last season's work in Central America makes lively as well as interesting reading. As in his previous books he mingles archaeological speculations and accounts of excavation with stories of Indian customs, descriptions of birds and anecdotes of travel, and few individuals, having once started to read, will be so ungrateful as to complain of his occasional lapses in syntax and his rather frequent colloquialisms. Field archaeologists working in this country may indeed be allowed some feelings of envy when comparing their own sparse finds with the lavish ruins of Honduras and Yucatan.

The most important discovery made by Dr Gann last season was undoubtedly that of the city which he has named Tzibanché or ' Writing on Wood ', from the single inscription found, which was carved on a wooden lintel. On this site he discovered six large temples, five of which were explored and measured. These were remarkable for the extreme narrowness of their inner chambers. As is well known, the Maya, owing to their ignorance of the principle of the true arch, were always restricted to a span of about 16 feet for their roofs, but the breadth of the chambers at Tzibanché seldom exceeded 3 feet and was sometimes less. The elucidation of the dated inscription found here, and the further exploration of the site will be looked for with interest, for Tzibanché is situated in the extreme south of Yucatan, and was presumably one of the first centres of the Maya new empire. The book also contains fairly comprehensive accounts of Tikal and Uaxactun, as well as the hitherto little visited Tulum, where Dr Gann was shown by the natives a small Maya shrine with the idol still in place.  
E. G. WITHEYCOMBE.

THE ARCHITECTURE OF ANCIENT ROME. By W. J. ANDERSON and R. P. SPIERS. Revised by THOMAS ASHBY, D.LITT., F.S.A. The Historical Architecture Library. B. T. Batsford. 1927. pp. 202, and 202 illustrations. 21s.

This book is a new edition of part II of Anderson and Spiers' *Architecture of Greece and Rome*, and has been revised and largely rewritten by Dr Ashby, late Director of the British School at Rome. This fact alone, apart from Dr Ashby's own reputation, would guarantee its excellence. At the present time, when in contemporary architecture, horizontal lines—to the exclusion of the soaring outlines of Gothic—seem to be more and more used, the study of ancient buildings must be of more importance to the modern architect than ever before, and it is partly with his needs in view that this work has been written. Such problems as the relative proportions of individual parts of a building to the whole, and of the possibilities and limitations of different materials, are dealt with in a general, if not in a strictly technical sense. But the book will also appeal to other readers. It gives a comprehensive account of all the important surviving Roman buildings, and will be invaluable to the more sober-minded tourist, bent upon some study of the great works of antiquity. It



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will also prove to be a mine of information for the classical scholar and ancient historian.

The plan is clear and convenient, dealing as it does first with very early work and then with buildings up to the period of the Empire. Materials are next considered and lastly a classified description is given of the building under such headings as forums, *thermae*, arches, aqueducts, etc. This system of grouping is very satisfactory as it helps the reader to compare, say, the various columns now remaining, though they may be scattered over the world. To the archaeologist who devotes himself to medieval architecture the book is full of suggestions; and when he reads of the barrel vault with ribs which still survives in the Roman temple at Nîmes he is led to wonder if the debt of the eleventh century architects to Rome has ever been fully realized.

The illustrations, both photographs and architects' drawings, are excellent, though the habit adopted in the text of referring to plates without mentioning the page to which they correspond is irritating. The convention, alluded to on page 12, of painting men's flesh red and women's white, is ascribed to Mycenaean times, but might surely be referred further back to Egyptian wall-paintings. The book contains a useful glossary of architectural terms, a bibliography, adequate maps, and, for the unhistorically minded, a list of the dates of the Roman emperors. D. P. DOBSON.

DIE KULTUR DER BRONZEZEIT IN SÜDDEUTSCHLAND. Von DR GEORG KRAFT. Benno Filser, Augsburg. 1926. pp. 153 and 58 plates. 35 R marks.

In south-west Germany the hill country was densely populated during the middle and late Bronze Age; for, with the dry 'subboreal' climate then ruling, these regions, today heavily timbered, were largely open heath. The pastoral tribes living on the uplands, like contemporary people in Britain, buried their dead under barrows. But the graves are far more richly furnished than the British so that the period may be divided up into several typological phases. Dr Kraft, who has studied intensively the barrows of the Swabian Alb, distinguishes four main epochs there. In the valleys there was a yet older bronze-using culture while the hill folk were still living in a stone age. The recognition of this overlap between stone and bronze enables Dr Kraft to point out the ancestry of his tumulus builders: they were descended from bell-beaker folk and the makers of corded-ware—elements also recognized in Britain—mingled with autochthonous Alpine stocks.

Kraft's concise and splendidly illustrated book will be a great boon to all interested in comparative archaeology and constitutes an authoritative guide to an obscure and important period, a close study of which may throw light on some of our own problems. Readers must not be deterred by the hideous and unnecessary 'Verdeutschungen' (*Schichtenkunde for Stratigraphie*, etc.) which Kraft's own countrymen have very properly repudiated. V. GORDON CHILDE.

THE EARLIER INHABITANTS OF LONDON. By F. G. PARSONS. Cecil Palmer. 1927. pp. 240. 10s. 6d.

This book does not live up to its title. It attempts to cover the whole of the kingdom, and London is dragged in at intervals in order to justify the title. Moreover, the treatment is extremely unequal. Professor Parsons is a recognized authority on physical anthropology, and we make no criticism of those parts of his book which come under this heading; but unfortunately he has not been content with approaching the

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subject from this angle, and the result is a medley of information, much of it incorrect or erroneous. There are some astounding statements on almost every page. On page 24 long barrows are contrasted with 'dolmens', though 'dolmens' frequently occur in long barrows. In speaking of Kit's Coty House the evidence of Stukeley's large engraving is conclusive that the 'dolmen' stood at the east end of a long barrow; but no reference is made to this, or to the Professional Paper on the megaliths of south-east England published by the Ordnance Survey, where this engraving is reproduced in facsimile. On page 47 it is stated that neolithic camps on the Chilterns are common. Not a single neolithic camp has been recorded in the Chilterns, however, and, if we define the Chilterns as the region lying between the Oxford-Bucks. lowlands on the north-west, the Thames on the south-west, and the Tertiary country on the south-east and east, there are only a very few camps of any sort within this area. The statement that 'agriculture, and probably other arts, were brought into Britain from time to time' is true but hardly helpful. The hoards of the late Bronze Age are spoken of (p. 52) as if they had some connexion with the Beaker people who lived a thousand years before. The Marden hoard in particular belongs unquestionably to the late Bronze Age or early Iron Age. Dr Parsons' words on page 52—'the northern track ran straight from Canterbury to the ford at Westminster'—make us rub our eyes. Does he really mean to suggest that this, one of the most unimpeachable of Roman roads, was really used by the Beaker people? Incidentally a writer who is dealing with the 'earlier inhabitants of London' should know that the barrows in Greenwich Park are Saxon burial-mounds and have nothing whatever to do with the Beaker people of 1800 B.C. or thereabouts. (See Douglas, *Nenia Britannica*, 1793, p. 89, and *Arch. Journ.* i, 166-8). The map on page 51 might have been drawn by a blind man; nor is there any clue to what the figures mean. It is *not* 'easy to believe' as is stated on page 64 'that when the Beaker folk came into Britain they brought the Celtic language with them'; and such an opinion is a direct contradiction of the statement on page 72 that Celtic tribes began to reach Britain about six centuries before the Christian Era. The interpretation (given on page 67) of the circular trench at Broadstairs in which burials were found is unconvincing, since it is based on the old-fashioned popular association of prehistoric burial places with battles, and this has no foundation in fact. The statement on page 100 referring the reader to Windle's book on the Romans in Britain, and another statement on page 91, shows that Dr Parsons' choice of authorities is an unfortunate one, and doubtless accounts for many of the errors pointed out above.

The fact is that when a specialist attempts to deal with matters outside his own province he nearly always selects the most speculative and least reliable writers as his guides, and the present book is no exception to the rule.

**DIE FUNDE AUS DEN PRÄHISTORISCHEN PFAHLBAUTEN IM MONDSEE**  
(Materialien zur Urgeschichte Österreichs, Heft. 3). By LEONHARD FRANZ and JOSEF WENINGER with contributions by ELISE HOFMANN and FRANZ ANGERER. Vienna, Anthropologische Gesellschaft. 1927. pp. 112 and 42 plates.

The joint authors have admirably fulfilled the rather thankless task of publishing a mass of highly important material dredged up by the late M. Much from two pile-villages on the shores of the little lake in the Austrian Alps. A full publication was the more urgent in that the finds are not preserved with the bulk of the Austrian material in the fine Naturhistorisches Museum but in the University's Institute where they are

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less generally accessible. The peculiar importance of the sites is due to the relatively large number of flat celts and other primitive copper objects they yielded. Much brought these types into relation with hypothetical exploitation of the copper lodes in the Alps in late neolithic times, and the authors have adopted his view while giving due weight to the objections urged by Kyrle. Indeed they explain—most plausibly—the location of the stations on the Mondsee and adjoining Attersee by the assumption of water-borne trade in the metal. The culture of these first Alpine metallurgists would be essentially that fusion of Danubian (II) and Nordic elements typically represented at Jordansmühl in Silesia—a view advanced by the reviewer three years ago. Franz and Weninger refuse to see in the habit of dwelling in pile-villages an integral trait of any neolithic culture-complex on Gräbner's lines, justly remarking that other traits of his 'bow-culture' go back to Mesolithic times, but forgetting that the same is to some extent true of lacustrine dwellings. It is pointed out that the Mondsee evidence is unfavourable, if not fatal, to Reinert's and Vouga's theory that pile-dwellings were not raised above the actual waters of lakes.

Elise Hofmann's valuable section on the vegetable remains brings out many interesting points: the Mondsee folk cultivated emmer and *vulgare* wheat, millet, barley, pears and apples but not flax. The illustrations and descriptions leave nothing to be desired.

The whole excellent work is published as a *Festschrift* in honour of Prof. R. Much. One notices with shame that, while several subscribers hail from Scandinavia, Finland Poland and Serbia, neither Britain, France, Italy nor Spain are represented in the list. Yet any self-respecting archaeological library must have the book. V. G. CHILDE.

### CATALOGUE OF EGYPTIAN HIEROGLYPHIC PRINTING TYPE. By A. H. GARDINER. Oxford University Press. 1928. pp. 45.

Dr Alan Gardiner has conferred a great benefit on students of Egyptology by his public-spirited action in reforming the hieroglyphic type now in use. This catalogue marks the immense advance which the subject has made since Theinhardt's catalogue of type was published in 1875. In 1892 Petrie first called attention to the actual meanings of the signs and their importance in showing the tools and other objects which must have been in use when writing was introduced. Since then Egyptian palaeography and epigraphy have made rapid strides; and those days have passed away when the facsimile reproduction of an inscription had to be re-drawn in order to conform to preconceived ideas of what hieroglyphs should look like. Dr Gardiner's type, drawn by such accurate draughtsmen as Mr and Mrs de Garis Davies, must always be a standard work for the forms of hieroglyphs in the New Kingdom, and can therefore be used by a student in any case where an inscription, or fragment of inscription, must be dated by the forms of the signs only and not by content. In several instances Dr Gardiner has given, in addition, forms of the Old Kingdom where they differ markedly from the New Kingdom forms: as, for example, the sign *kp*, 'to fumigate', which is clearly an incense-burner in the early examples though unintelligible later. Altogether the book is extraordinarily useful and interesting; it is not a mere list of type available for printing hieroglyphs, it is in itself a means of studying the palaeography and epigraphy of the New Kingdom.

M. A. MURRAY.



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STUDI ETRUSCHI. Vol. I. Comitato Permanente per l'Etruria. Florence. 1927. pp. 588 and 75 plates. 150 lire.

The amount of attention that is now being devoted in Italy to the study of Etruscan antiquities may be gauged by a perusal of this large volume, which contains the papers read at the congress held in 1926. It is impossible to deal with it here as fully as it deserves ; but we may console ourselves by the reflection that the problems which were there discussed have recently come up again, though, as is natural, the congress of this year being international a rather wider survey was taken.

The volume opens with an interesting paper by Antonielli, in which he remarks on the strange lack of remains of the Bronze Age in Central Italy, and on the juxtaposition of inhumation and incineration in the same cemeteries, showing, he maintains, the contemporaneous presence of different races. Both of these points bear on the much debated question of the origin of the early inhabitants of Etruria, and of the Etruscans themselves—though (as Cultrera emphasizes in a later paper) it is now fairly generally held that they came from Asia Minor, and were comparatively few in number. Cultrera maintains that the rapid spread of Etruscan civilization and art was due to the receptivity of the Italic peoples, rather than to the capacity for assimilation of the Etruscans themselves, and indeed prefers to speak of Italic rather than of Etruscan art.

Other papers go more into detail—thus there are some interesting particulars in regard to the ancient topography of Arezzo ;—a description of discoveries at Vulci during the excavation of a canal for electric power, in which a fine centaur and a hippocampus of the end of the 6th century B.C. were found, while the famous François tomb was reopened ;—a brief account of the recent discoveries in the necropolis of Caere by Mengarelli, who is in charge of the excavations there, with numerous illustrations : he points out that only a very small part of it has as yet been excavated.

Mengarelli also contributes a note, with some interesting reproductions, of parts of the old archaeological survey of Etruria, on which Pasqui and Cozza did some valuable work (hitherto unpublished) between 1885 and 1891.

Another note shows us how much a few potsherds may tell us about the history of a site. All the books state that Cosa, one of the loveliest places in Etruria, overlooking the lagoon of Orbetello, with a splendid circuit of fortifications, was only founded in the 4th century B.C., and extended to the foot of the hill, under the name of Succosa, in the imperial period. And now the careful researches of three Italian archaeologists, Minto, Pernier, and Levi have led to the discovery of prehistoric pottery at the foot of the hill, a fact which, as is rightly pointed out, upsets the whole of this so called history : for it is not reasonable to suppose that this commanding site remained unoccupied when the slopes of the hill were inhabited.

T. ASHBY.

ETUDES ROMAINES. I. LA BASILIQUE PYTHAGORICIENNE DE LA PORTE MAJEURE. By JÉRÔME CARCOPINO. Paris : L'Artisan du Livre. 1927. pp. 416 and 24 plates, 1 folding plan. 30 francs.

The object of the series of which this is the first volume is, as explained in the preface, to describe to the French public the various monuments of antiquity which have come to light in the city of Rome during and after the war. Excavations made of set purpose by Italian officials very naturally languished during the period between 1915 and 1923 ; but Fate willed that a number of remarkable chance discoveries should fill the gap ; and the most remarkable was that of the underground basilica near the

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Porta Maggiore. In April 1917, the ballast under the main line to Naples, about 100 yards to the east of the gate, began to give way ; and the railway engineers found that the rails lay almost directly over the circular airshaft of an ancient corridor, which soon led into what proved to be the atrium of the basilica, the floor of which lay some 45 feet below the level of the line. In order to be able to consolidate the line it was necessary to explore the whole monument, and take measures for its permanent preservation.

The building has, since then, been often described and discussed, though the official publication, the text of which is to be written by Dr Bandinelli, has not yet seen the light ; so that only portions of the remarkable stucco decorations of the interior are as yet available for study by scholars who are not fortunate enough to have seen the building itself. They have however, been fully described by Mrs S. Arthur Strong, with the collaboration of Miss N. Jolliffe, in the *Journal of Hellenic Studies* ; and the folding plan at the end of the present work gives an adequate idea of their arrangement and of the varied nature of the subjects which are to be found in them.\* It is, indeed, from these representations, and from them alone, that we can hope to derive any information as to the nature of this remarkable building. M. Cumont had already pointed out the striking analogy between this building, sunk at a considerable depth below ground and lighted from the atrium, with the ritual arrangement of the caves of Pythagoras, and had therefore ascribed it to one of the Pythagorean sects which had lived on from the Republican period into the early Empire ; but M. Carcopino develops the theory a good deal further. He accepts the conjecture of the original discoverers of the basilica—that it lay within the area of the gardens of Statilius Taurus, whose voluntary death in 53 A.D. only anticipated his inevitable condemnation for practising ‘ magical arts ’ ; and he accepts also the date to which they assign it. He then proceeds to show in great detail how all the various subjects of the decoration fit in with what we know of the tenets of Pythagoreanism, of the details of its liturgy, of its hell on earth and heavenly paradise. He concludes with an explanation of the scene in the apse—the leap of Sappho into the sea at Leucas—not as a glorification of suicide, but as purification from her earthly love for Phaon, and a rebirth of her soul to higher things.

The book is a brilliant attempt to solve many difficult problems, and requires a more detailed treatment than it is possible to give it here : but the skill and scholarly ability with which M. Carcopino has dealt with this interesting subject is deserving of all praise.

T. ASHBY.

THE ANTIQUITY OF MAN IN EAST ANGLIA. By J. REID MOIR. Cambridge University Press. 1927. pp. 175, 25 plates and 74 figs. 15s.

It is useful to have a collected account of the views of Mr Reid Moir placed before us in a convenient form. Mr Reid Moir has been labouring for many years in the building of a pyramid upon its apex, and it is particularly useful to one of the opposing school to be able to realize at a glance how hazardous is the foundation upon which such an imposing superstructure is built.

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\* It would seem, from the fact that the earth in the interior of the basilica had already been passed through a sieve, that the building had been already ransacked in the Renaissance ; though it is very strange that we should have no record of the discovery of so remarkable a building, even though it had yielded no sculptures, bronzes, or other small objects—which were entirely lacking in the building when found, and had indeed been removed in ancient times, when it ceased to be used almost before its decoration was completed, owing to the death of its owner and the persecution by Claudius of other members of the sect which worshipped in it.

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Prehistory is largely founded upon the reliable identification of prehistoric industries in flint or other stone. Mr Reid Moir starts with a statement and illustration of the main distinction between the work of nature and the work of man which represents nothing of the truth. With such a foundation, it is no wonder that the superstructure is spreading out more and more dangerously overhead.

The frontispiece is typical. It represents a stone that is described as a 'great hand-axe weighing 7 lbs., from the Cromer Forest Bed'. There are many students of prehistory who view the smashing of flint with different eyes and who can see no value or interest in this stone except to go into the foundations of a road. This is due, not to prejudice arising from the date of the stone, but to a different judgment of flint fracture. The Heidelberg jaw cannot be far removed (in age) from the Cromer Forest Bed; no one can doubt that humans, or humanoids, were in existence at this time. It could be argued that these people might have reached the stage of evolution of the 'stone age', but this has not yet been established.

There are flints from the Cromer Forest Bed that are more suggestive of man's work than the one represented in the frontispiece. But unfortunately these have to be selected from an immense mass of broken flints that is known as the 'stone-bed'. When one digs in that stone-bed for oneself, one realizes how the stones have been jammed together, crushed one against another, and smashed by violent natural agencies. The selection of convincing artefacts from an ordinary river gravel lies in a different category from the selection of not-quite-convincing resemblances to implements out of a mass of natural smashings. In prehistory the 'not quite' may often be transposed into the 'quite not'.

Serious confusion is introduced between (1) the flakings on the open beach at Cromer (there is good evidence to prove that these still continue to be made by the sea); (2) the Palaeoliths which are also found on the open beach, but which are derived from the river gravels that overlies the glacial deposits; (3) the flakings of independent origin which are found in the stone-bed, to which reference has already been made. The glacial and river gravels referred to above are further confused in the book before us. These very different items are so mixed up that the reader who is unfamiliar with both the individual specimens, and the sites of their discovery, must receive a completely erroneous impression of the evidences.

A few years ago a neolithic implement derived from the surface soil came down nearly to the level of the beach, in a mixed sludge-stream in the cliffs at Sidestrands—not an unusual occurrence. Shortly after the discovery the reviewer examined the site very carefully. This becomes a 'flint implement of Early Palaeolithic-Chellean type from Lower Glacial Clay'. Bathing-shoes may be found in 'not-quite' boulder clay just as much as this neolithic implement.

In other branches of science, such as chemistry or physics for example, a doubtful observation can usually be repeated, and its accuracy or error thus established. Unfortunately this is not possible in prehistory, and it is here that we find the peculiar danger and weakness that is inherent in the subject itself.

One could continue, point by point, to lay bare the insecure foundations of the vast superstructure so clearly revealed to us in this book. It may be that the fulness of time will bring an automatic crash by over-loading. If this book helps to achieve that result and thus to clear the ground for a sounder prehistory to be rebuilt upon a sure foundation it will have done an inestimable service.

S. HAZZLEDINE WARREN.



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KULTURGESCHICHTE DES NORWEGISCHEN ALTERTUMS. Von A. W. BROGGER. Oslo (H. Aschehoug & Co.), also Leipzig, Paris, London, and Cambridge, Mass. 1926. Instituttet for Sammenlignende Kulturforskning, publication series A, VI. pp. 246.

This important book may justly rank as one of the small and brilliant band of regional studies that not only consolidate the archaeological and historical research of recent years but are themselves signal contributions to knowledge by virtue of the profound insight and scholarship of the author. Thus, while it may be charged against this book that most of the assembled facts are already well-known, Dr Brogger's careful choice of material, his commentary upon this evidence, and his interpretation of it, undoubtedly provide a distinguished and challenging example of proper judgment that successfully provides us with a new and stimulating vision of Norway's distant past.

The author's first duty is to observe that the typological method of assessing race, cultural status, and chronology, is, at any rate in its usual text-book form, seriously at fault in Norway, and that one certainly cannot, in that country, dispose of cultural changes by a facile explanation in terms of climatic variations and of successive invasions. Dr Brogger appeals rather to the economic history of his land as being most of all likely to illustrate the necessities and behaviour of early man, wherefor the little-changing struggle for existence on the coasts and on the sea, in the woodlands, on the mountains, and in the pastures, are the main subject of his inquiry, and it is in accord with the result of his studies under these headings that the prehistory of Norway is unfolded before us.

We begin, then, with a survey of the littoral cultures, mostly of a 'Stone Age' character, where it is possible to distinguish the sites yielding no evidence either of domestic animals or of agriculture, from those where the bones of domestic animals and traces of cereals are to be found. But as we have to reckon with the complication of seasonal variations in habitation, a temporary change from agricultural and pastoral life occasioned by prolonged hunting expeditions, it is clear that the relative chronology is excessively difficult to decide. The main conclusion, however, is that of these hunting and fishing grounds those where domestic animals are found are not likely to be of the pure Stone Age, and that many are plainly sites occupied at the proper seasons over a long stretch of time, almost, in fact, up to the historic period. And here, of course, the excessively simple equipment necessary makes it hard to distinguish between the remains left by Stone Age, Bronze Age, and Iron Age man. We may, however, speak of an earlier Viste- or Nöstvet-period showing a purely hunting culture that is typical of the beginning of the Norwegian Stone Age, and we may add to this a short 'neolithic' period wherein the arts of agriculture and the domestication of animals were introduced. Nevertheless, in general the finds from the supposed Stone Age sites must for the present rest under suspicion. On the other hand, the penetration and occupation of the interior can be shown to be a relatively late achievement, and the 'reindeer-culture' here is not earlier than the Iron Age; thus the 'Ur-folk' of the Hardangervidda are dismissed as the product of romantic imagining, and we are told that most of the finds representing them belong really to the early Iron Age, if not to the Migration and Viking periods or even to early medieval times. The author next describes the rock-engravings, of which the majority are explained as the hunters' magic of the old littoral stations. The psychology of hunters must be everywhere of much the same nature, so that parallels from far afield, for instance from France, are of little chronological importance, and a Bronze Age or Iron Age date is thought to be probable for the Norwegian group.



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A study of the hunting weapons themselves shows an astonishing survival of primitive Stone Age types throughout the later periods, and it is made clear that Bronze is never more than an occasional luxury. In fact, the Bronze Age culture was mainly lithic, and, except for the limited use of the metal axe, almost an unaltered continuation of the Stone Age. Indeed, the Stone Age in Norway ends only with the introduction of iron; and this, next to the introduction of domestic animals and of agriculture, marks the most significant development and change in the early cultural history of Norway. The full knowledge of the uses of the new metal is thought to be a result of indirect contact with Roman culture, and it is this knowledge of iron that is primarily responsible for the full exploitation of interior Norway.

As to the races concerned in this story, there is little to be said, at any rate until the anthropological material collected by Schreiner has been digested. But the evidence, particularly that of place-names as analyzed by Magnus Olsen, hints that the men of the Stone-Bronze Age were germanic, and to this there is nothing to add except that there was a steady immigration of other germanic peoples from the 3rd to the 6th century A.D. But as to the dubious and difficult material provided by Pytheas, Ptolemy, and, later, by Jordanes, it is as well to study collaterally with Dr Brogger's succinct account the learned *Det Svenska Rikets Uppkomst* by Birger Nerman. For Dr Brogger does not consider his book complete with a description of the prehistoric inhabitants, but in a condensed and admirable section he carries the story onwards to the time of the death of St. Olaf.

The only criticism to be urged against this excellent book is the modest objection that the lack of a map and a few illustrations embarrasses the reader who is not intimately familiar with the material described.

T. D. KENDRICK.

THE ENGLISH CASTLES. By E. B. d'Auvergne. Werner Laurie Ltd. 1926. pp. 263. 21s.

This volume is evidently the fruit of great industry and it contains a great deal of useful detail. The author's avowed intention is to combine architectural and historical material in suitable proportions, but his plan is executed in a somewhat unsatisfactory manner. That part of the work dealing with architecture would be greatly improved by the addition of a few diagrams and the substitution of good photographs of castles for the very second-rate 18th century prints which unaccountably form the bulk of the illustrations. The chief flaw in the historical portion of the book is a strangely uncritical acceptance of the more lurid tales of medieval and other chroniclers, whilst the book as a whole suffers from the extraordinarily old-fashioned high-flown fustian of its style. For example, Henry VIII, for whom Mr d'Auvergne seems to feel an almost personal abhorrence, is variously styled 'a gross villain', 'a baffled debauchee', 'fickle tyrant', and 'the blackest scoundrel that ever wore a crown', whilst Corfe Castle, pleasantest of ruins and beloved of artists is described as a 'gloomy ruin, reminiscent of anguish and dark deeds', which 'totters to its fall as though oppressed by the horror and iniquity of which it has been the scene'.

E. G. WITHEYCOMBE.

GREECE OLD AND NEW. By ASHLEY BROWN. Methuen. 1927. pp. 255, 20 illustrations and map. 12s. 6d.

Messrs Methuen's firm is well known for its glorified guide books, and this volume on Greece is well up to their high standard. Mr Ashley Brown writes lucidly



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and even gracefully and manages to convey a great deal of historical and archaeological information in a pleasant and straightforward manner. Perhaps the most interesting part of the book, however, is the description and illustrations of the monasteries of Mount Athos and the Meteoron.

E. G. WITHERCOMBE.

ROMANTIC JAVA, AS IT WAS AND IS. By H. S. BANNER, F.R.G.S. Seeley, Service and Co. 1927. pp. 282. 21s.

Java is a name of interest to any archaeologist, but those who expect to find mention in this volume of Trinil and its skull will be disappointed. There is some description of the country and its people and an account of the history and customs of the island, but the best part of the book is to be found in the interesting illustrations.

E. G. WITHERCOMBE.

A GUIDE TO THE QUTB, DELHI. By R. A. PAGE. Calcutta: Government of India Central Publication Branch. 1927. pp. viii, 36, 12 plates.

This is a reprint in handy form of Mr Page's able and scholarly Memoir no. 22 of the Archaeological Survey (1926), but without the introduction, most of the plates and notes, and all the appendices except one. These excisions are unfortunate, for the notes and plates set forth the evidence on which Mr Page bases his interpretations and correlations, while the introduction brings out clearly the significance of the Qutb monuments in the history of Indo-Saracenic architecture. The one surviving appendix (on conservation) is of merely departmental interest.

When in 1193 A.D. Qutbu-d-din Aibak, Amir of Muhammad Ghori and founder of the Delhi Sultanate, established himself in his new capital, Saracenic architecture had already 'crystallised into defined forms'. But it was at that moment a far cry from Delhi to the centres of Islamic culture, and a mosque was an urgent necessity, so Aibak assembled the local craftsmen and the fragments of 27 Hindu temples and built a mosque in which Hindu influence predominates. But the balance was quickly reversed. The Qutb Minar, which Aibak began and his successor Altamsh (1211-36) finished, is 'consistently Saracenic', and, as the Qutb buildings prove, by the time of Ala-ud-din Khalji (1296-1316) the transition was already complete; thenceforward Muhammadan architecture in north India, though never losing the Indian touch, is 'self-determined'.

F. J. RICHARDS.

## BOOKS RECEIVED

*Things Seen at the Tower of London.* By H. Plunket Woodgate. Seeley and Co. 3s. 6d.

*Things seen in Switzerland in Summer.* By Douglas Ashby. Seeley and Co. 3s. 6d.

*The Grey Shrines of England.* By Arthur Grant. Chambers. 7s. 6d.

*The Earth, its nature and history.* By Edward Greenly. Watts and Co. 1s.

*Concerning Man's Origin*; being the Presidential Address given at the Meeting of the British Association in Leeds on August 31, 1927, and recent Essays on Darwinian subjects. By Professor Sir Arthur Keith. Watts and Co. 1s.

*Human Environment and Progress*; The Outline of World Historical Geography. By W. R. Kermack. W. and A. K. Johnston. 4s.



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- The Stone Age.* By E. O. James. The Sheldon Press. 3s. 6d.
- Ancient Civilizations.* By Donald Mackenzie. Blackie. 12s. 6d.
- Marc Lescarbot, Nova Francia, a Description of Acadia, 1606.* Translated by P. Erondelle, 1609, with an Introduction by H. P. Biggar. Routledge. 12s. 6d.
- The History of Iron Manufacture.* By Henry Louis. A paper read before the Sheffield Society of Engineers and Metallurgists, 10 December 1924. J. W. Northend Ltd., Printers, West Street, Newcastle.
- Woodbrooke Essays.* By Rendel Harris. Heffer, Cambridge.
- Late Glacial Clay Varves in Himalaya, connected with the Swedish time-scale.* By Erik Norin. *Geografiska Annaler*, 1927, tt. 3.
- The Sussex County Magazine*, December, 1927. Edited by Arthur Beckett. 1s.
- Memoirs of the Archaeological Survey of India*; no. 30. The Beginnings of Art in Eastern India, with special reference to sculptures in the Indian Museum, Calcutta, by Ramaprasad Chanda, 1927, 5s. 9d.; no. 32. Fragment of a Prajnaparamita Manuscript from Central Asia, by Pandit B. B. Bidyabinod. 3s. Central Publication Branch, Government of India, Calcutta.
- The Origins of Civilization.* By E. N. Fallaize. 1928. Benn's sixpenny library.
- The Beginning of Things :—Ancient Mariners*, by C. Daryll Forde, 1927; *First Player*, by Ivor Brown, 1927; *Gods and Men*, by W. J. Perry, 1927; *Here we go Round*, by Evelyn Sharp, 1928. Gerald Howe. 2s. 6d. each.
- The Messianic Idea.* By Chilperic Edwards. 1927. Watts and Co. 4s. 6d.
- Some Questions of Musical Theory.* By Wilfrid Perrett. 1926–8. 2 vols. Heffer, Cambridge. 12s. 6d.
- The Mermaid and Mitre Taverns in Old London.* By Kenneth Rogers. 1928. Homeland Association. 10s. 6d.
- Hydriotaphia.* By Thomas Browne. Noel Douglas replicas. 1927. 9s.
- Corridors of Time : III. Peasants and Potters ; IV. Priests and Kings.* By Harold Peake and H. J. Fleure. 1927. Oxford : Clarendon Press. 5s. each.
- The Glamour of Near East Excavation.* By James Baikie. 1927. Seeley Service. 10s. 6d.
- The Kokogaku Kenkyu.* Number 2. December 1927. Tokyo.
- The Divine Origin of the Craft of the Herbalist.* By Sir E. A. Wallis Budge. 1928. Culpeper House, 7 Baker street, London. 5s.
- The Book of the Cave of Treasures.* By Sir E. A. Wallis Budge. 1927. Religious Tract Society. 10s. 6d.
- Late Quaternary Glaciation of the North-Western Himalaya.* By Erik Norin. *Geografiska Annaler*, 1925, H 3.
- Relief Chronology of the Chenab Valley.* By Erik Norin. *Geografiska Annaler*, 1926, H 4.